The Fore Part.

1. *The Forehead.*
2. *The Temples.*
3. *Cavity above ye Eyes.*
4. *The Jaw.*
5. *The Lips.*
6. *The Nostrils.*
7. *The tip of the Nose.*
8. *The Chin.*
9. *The Beard.*
10. *The Neck.*
11. *The Maine.*
12. *The Fore Top.*
13. *The Throat.*
14. *The Withers.*
15. *The Shoulders.*
16. *The Chest.*
17. *The Elbow.*
18. *The Arm.*
19. *The Plate Vein.*
20. *The Chesnutt.*
21. *The Knee.*
22. *The Shank.*
23. *The Main Tendents.*
24. *The Fetlock Joynt.*
25. *The Fetlock.*
26. *The Pastern.*
27. *The Coronet.*
28. *The Hoof.*
29. *The Quarters.*
30. *The Toe.*
31. *The Heel.*

The Body.

32. *The Reins.*
33. *The Fillets.*
34. *The Ribs.*
35. *The Belly.*
36. *The Flanks.*

The Hind Part.

37. *The Rump.*
38. *The Tail.*
39. *The Buttocks.*
40. *The Hanches.*
41. *The Stifle.*
42. *The Thighs.*
43. *The Hock.*
44. *The Kerb.*
45. *The point of ye Hock.*

THE

SPORTSMAN's DICTIONARY;

OR, THE

GENTLEMAN's COMPANION:

FOR

TOWN AND COUNTRY.

CONTAINING FULL AND PARTICULAR INSTRUCTIONS FOR

RIDING,	SETTING,	FARRIERY,
HUNTING,	FISHING,	COCKING,
FOWLING,	RACING,	HAWKING, *&c.*

WITH

The various METHODS to be obſerved in BREEDING and DIETING of HORSES both for the ROAD and TURF;

ALSO,

The MANAGEMENT of DOGS, GAME-COCKS, DUNGHILL-FOWLS, TURKIES, GEESE, DUCKS, DOVES, PIGEONS, SINGING-BIRDS, &c.

And the MANNER of CURING their various DISEASES and ACCIDENTS.

COLLECTED FROM THE MOST APPROVED AUTHORS;

WITH VERY CONSIDERABLE ADDITIONS AND IMPROVEMENTS,

BY EXPERIENCED GENTLEMEN.

ILLUSTRATED WITH COPPER-PLATES,

Repreſenting all the DIFFERENT KINDS of NETS, SNARES and TRAPS, that are now made Uſe of in FOWLING; and the IMPLEMENTS for ANGLING.

THE FOURTH EDITION,

CONSIDERABLY IMPROVED AND ENLARGED.

O N D O N:

. ROBINSON, IN PATERNOSTER-ROW,

LE, IN THE OLD BAILEY.

1800.

THE

PREFACE.

THE mind of man is incapable of a conſtant application, either to ſtudy or buſineſs; it is therefore highly neceſſary to relieve it, at convenient ſeaſons, by ſuch relaxations as may refreſh its faculties, and recruit the animal ſpirits that have been diſſipated by laborious purſuits, or a length of ſtrict attention. And when the amuſements to which we have recourſe, on ſuch occaſions, are friendly to health, delightful to the ſenſes, and perfectly conſiſtent with innocence, they have all the recommendations we can poſſibly deſire.

The ſubjects of theſe ſheets are entirely of this nature, and are ſo peculiarly adapted to ſcenes of rural life, that a juſt knowledge of them is conſidered as a neceſſary accompliſhment in gentlemen, who devote their vacant hours to the country.

It would be needleſs to enlarge on the ſatisfactions and advantages they are capable of affording us. No proſpect of nature can awake more pleaſing ideas in the imagination,

nation, than a landſcape, diſtributed into verdant woods, and opening lawns, with the diverſity of extended plains, flowery meadows, and clear ſtreams: the heart of a contemplative beholder melts into ſecret raptures at the inchanting view, and he is immediately prompted to hail the Great Benefactor who ſheds ſuch a profuſion of beauties around him. But when he likewiſe regards them as ſo many rich magazines, intended for the accommodation of his table, as well as for the improvement of his health, and the ſolace of his mind, he begins to think it a reproach to him to be unacquainted with the manner of acquiring theſe enjoyments that were created for his uſe with ſo much liberality; and he is then convinced that Hunting, Fowling, Fiſhing, Riding, &c. &c. are more neceſſary to his welfare than at firſt he might imagine.

In order therefore to render theſe, and other rural recreations, as intelligible and familiar as poſſible, we have carefully collected the beſt obſervations that have been made on each article; we have conſulted a variety of authors on this occaſion, and have ſelected every particular from them, that we thought would contribute to pleaſure, intereſt, and improvement; and, as we were deſirous to render this work as complete as poſſible, we have prevailed upon ſeveral gentlemen of diſtinguiſhed abilities and experience, to favour us with a great number of intereſting paſſages, that we are perſuaded will be very acceptable and inſtructive to thoſe who have an inclination to gain a competent knowledge of theſe agreeable ſubjects; and we have ſelected from ſome modern publications, various articles that may improve and elucidate the ſubjects herein treated of, particularly from the valuable publication of Mr. LAWRENCE, who has obliged the public with ſome excellent obſervations relative to horſes, &c.

As our intention was to make this performance equally perſpicuous and regular, we have digeſted it into the form of a Dictionary, in which we have been careful to range

under

under each head every particular peculiar to it, ſo as to illuſtrate the articles in the moſt effectual manner; by which means we have rendered the whole ſo methodical and familiar, even to a common comprehenſion, that we flatter ourſelves we ſhall not be taxed with obſcurity in any material circumſtance neceſſary to be underſtood. We may likewiſe venture to add, that the plan we have purſued, through the whole courſe of theſe ſheets, will eaſe the curious of the expence and trouble of conſulting a number of books written on theſe ſubjects, ſince, as we have already intimated, all imaginable care has been taken to extract from the moſt approved authors whatever obſervations may be neceſſary to give our readers a clear and expeditious knowledge of all the various branches of theſe pleaſing recreations; as well as receipts from the different authors of eſtabliſhed reputation for the cure of moſt complaints incident to Horſes, Dogs, Swine, Cocks, &c. which in this edition is conſiderably enlarged; as well as the articles Hunting, Fiſhing, Fowling, &c. &c. with proper inſtructions for the moſt ignorant to prevent their being impoſed on in purchaſing Horſes, by deſigning Dealers in thoſe valuable animals; ſo as to render the work uſeful to the Farmer as well as the Sportſman, and to blend information with amuſement and profit with exerciſe.

THE

THE UNIVERSAL

SPORTSMAN's DICTIONARY.

ABATE; a horse is said to abate, or take down, his curvets, when working upon curvets, he puts his two hind legs to the ground both at once, and observes the same exactness in all the times. *See* CURVET.

ABSCESS, proceeds from a blow, hurt, or some violence, incident to several animals, as horses, sheep, poultry, &c.

In HORSES, a cataplasm or poultice of lime, reduced to a fine powder, and mixt with wine and oil in equal quantities, ought to be applied to the part affected; or one of wheat-flour, steeped in vinegar, with half an ounce of manna, may be used in its stead.

In SHEEP, the method is to open the tumour, in what part soever it is found, and after letting out the matter, to pour into the wound some melted pitch, and burnt salt powdered.

In POULTRY, they open the abscess with a pair of scissars, pressing out the corruption with their fingers; and then give them lettuce chopped small, and mixed with bran steeped in water, and sweetened with honey, to eat.

ABATURES, is soiling the sprigs or grass that a stag throws down in passing by.

ABERDIVINE, or BARLEY-BIRD, a small singing-bird, not much unlike the Canary-bird.

ACCLOYED, signifies pricked. A horse's foot, when pricked in shoeing, is said to be accloyed.

ACHE, [in *horses*] a pain in any part of the body; a disease that causes numbness in the joints, and proceeds from cold, taken upon hard and violent exercise or labour; for which there are several remedies.

ACOPUM, a fomentation to allay the sense of weariness; also, a medicine for horses, used for the same purpose, and prepared thus: Take half an ounce of castoreum, adraces two ounces, of bdellium half an ounce and half a quarter, opopannax an ounce, fox grease half an ounce, pepper an ounce, laserpitium three quarters of an ounce, ammoniacum two ounces, pigeons dung as much, half an ounce of galbanum, one ounce and a quarter of nitre, three quarters of an ounce of spuma nitri, laudanum two ounces, pyrethum and bay-berries of each three quarters of an ounce, cardamum two ounces, rue seed two ounces, seed of agnus castus one ounce, parsley seed half an ounce, dried roots of flower-de-luce an ounce and quarter and half, oil of bay as much, oil of spikenard three quarters of a pound, oleum cyprinum fourteen ounces, the oldest olive oil a pound and half, pitch six ounces, turpentine four ounces; every one of them that will dissolve, melt separately by themselves, then mingle them together with the rest of the ingredients, first beating to fine powder; after they have boiled a little on the fire, take off the pan, and strain the liquor into a clean gallipot, to be kept for use: in administering this medicine, give not above two spoonfuls at a time, in a pint of sack or muscadine wine, and if by long keeping it hardens, soften it with a little cypress oil.

It is both a medicine and an ointment, helping convulsions, string-halts, colds, &c. in the sinews and muscles, draws forth all noisome humours, and being put up the nostrils of a horse, by means of a long goose feather, anointed therewith, disburdens the head of all grief.

It dissolves the liver, troubled with all oppilations, or obstructions, helps ficcity and crudity in the body, banishes all weariness; and, lastly, cures all sorts of inward diseases, if given by way of drench, in wine, beer, or ale.

ACTION, implies the motion of the various parts of a horse in doing his paces.

ACTION OF THE MOUTH, is the agitation of the tongue, and the mandible of a horse, that by champing upon the bridle, keep his mouth fresh. You may see

by the white ropy foam, that a horse has the action of the mouth, which is a sign of vigour, mettle, and health.

ACULER, a French word, used in the academies, importing that a horse working upon volts in the manage, does not go far enough forwards at every time or motion, so that his shoulders embrace, or take in, too little ground, and his croupe comes too near the center of the volt.

This horse has acule, because the horseman did not turn his hand, and put him on with the calf of the inner leg.

Horses have a natural inclination to this fault, in making demi-volts. *See* VOLT.

When the Italians work a horse upon the demi-volts, called repolons, they affect to make them acule, or cut short. *See* ENTABLER, and REPOLON.

ADDER-STUNG, is said of cattle when stung by adders, or hornets, or bit by a hedge-hog or shrew, for which complaint observe the following directions from Mr. LAWRENCE. In punctures from the stings of hornets, or wasps, or wounds by the tusks of a boar, which last are apt to swell as if venom were really instilled: Wash clean with warm soap suds, and anoint well several times a-day with warm sallad oil. Emollient poultices, and fomentations with rue, wormwood, bay-leaves, rag-wood, and wood-ashes. Heal with Ægyptiacum and brandy mixed. Saline physic, or nitrated water, if feverish symptoms supervene; or the internals, as hereafter recommended. The bite of a viper or eft, is of far worse consequence; not only the wounded part, but sometimes the whole body, will be considerably swelled. Make a tight bandage above the wound, if upon a limb: enlarge the wound with a small sharp pointed cautery, avoiding the tendons, and keep it open as long as the venomous symptoms remain, with sponge smeared with precipitate ointment, or orris-root prepared with Spanish flies. Rub in warm oil mixed with viper's fat, both to the wound and the swelled parts. Wash with strong vinegar, one pint; mustard-seed, two ounces; mix. Stop close a few hours, and strain. Dress with warm Ægyptiacum, once or twice a-day. In some cases bleeding is required. The following drink every night for a week. Venice treacle, one ounce; salt of hartshorn, one drachm; cinnabar of antimony, half an ounce; sweet oil, three ounces in warm ale. Drinks of wormwood, rue, and scordium. Scraped tin.

ADVANCER, one of the starts or branches of a buck's attire, between the back antler and the palm.

To AFFOREST, is to turn land into forest; and, on the contrary, to DISAFFOREST, is to turn land from being forest to other uses.

AGE OF AN HORSE. To know how old a horse is, there are several outward characters; 1. his teeth, whereof he has in his head just forty; that is, six great wong teeth above, and six below on one side, with as many on the other, that make twenty-four, called *grinders*; then six above, and as many below, in the fore part of his mouth, termed *gatherers*, and making thirty-six; then four tushes on each side, named *bitt-teeth*, which make just forty. As mares usually have no tusks, their teeth are only thirty-six.

A colt is foaled without teeth; in a few days he puts out four, which are called pincers, or nippers; soon after appear the four separaters, next to the pincers; it is sometimes three or four months before the next, called corner teeth, push forth. These twelve colt's teeth in the front of the mouth, continue, without alteration, till the colt is two years, or two years and a half old, which makes it difficult, without great care, to avoid being imposed on during that interval, if the seller finds it his interest to make the colt pass for either younger or older than he really is: the only rule you have then to judge by is his coat, and the hairs of his mane and tail. A colt of one year has a supple, rough coat, resembling that of a water spaniel, and the hair of his mane and tail feels like flax, and hangs like a rope untwisted; whereas a colt of two years has a flat coat, and straight hairs, like a grown horse.

At about two years and a half old, sometimes sooner, sometimes later, according as he has been fed, a horse begins to change his teeth. The pincers, which come the first, are also the first that fall; so that at three years he has four horse's, and eight colt's teeth, which are easily known apart, the former being larger, flatter, and yellower than the other, and streaked from the end quite into the gums.

These four horse pincers have, in the middle of their extremities, a black hole, very deep; whereas those of the colt are round and white. When the horse is coming four years old, he loses his four separaters, or middle teeth, and puts forth four others, which follow the same rule as the pincers. He hath now eight horse's teeth, and four colt's. At five years old he sheds the four corner, which are his last colt's teeth, and is called a horse.

During this year also, his four tusks (which are chiefly peculiar to horse's) come behind the others; the lower ones often four months before the upper; but whatever may be vulgarly thought, a horse that has the two lower tusks, if he has not the upper, may be judged to be under five years old, unless the other teeth shew the contrary; for some horses that live to be very old never have any upper tusks at all. The two lower tusks are one of the most certain rules that a horse is coming five years old, notwithstanding his colt's teeth may not be all gone.

Jockies and breeders, in order to make their colts seem five years old when they are but four, pull out their last colt's teeth; but if all the colt's teeth are gone, and no tusks appear, you may be certain this trick has been played: another artifice they use, is to beat the bars every day with a wooden mallet, in the place where the tusks are to appear, in order to make them seem hard, as if the tusks were just ready to cut.

When a horse is coming six years old, the two lower pincers fill up, and, instead of the holes above-mentioned, shew only a black spot. Between six and seven the two middle teeth fill up in the same manner; and between seven and eight the corner teeth do the like; after which it is said to be impossible to know certainly the age of a horse, he having no longer any mark in the mouth.

You

You can indeed only have recourse to the tusks, and the situation of the teeth, of which I shall now speak.

For the tusks you must with your finger feel the inside of them, from the point quite to the gum. If the tusk be pointed flat, and has two little channels within side, you may be certain the horse is not old, and at the utmost only coming ten. Between eleven and twelve the two channels are reduced to one, which after twelve is quite gone, and the tusks are as round within as they are without; you have no guide then but the situation of the teeth. The longest teeth are not always a sign of the greatest age, but their hanging over and pushing forward, as their meeting perpendicularly, is certain token of youth.

Many persons, whilst they see certain little holes in the middle of the teeth, imagine that such horses are but in their seventh year, without regard to the situation the teeth take as they grow old.

When horses are young, their teeth meet perpendicularly, but grow longer, and push forward with age: besides the mouth of a young horse is very fleshy within the palate, and his lips are firm and hard: on the contrary, the inside of an old horse's mouth is lean both above and below, and seems to have only the skin upon the bones. The lips are soft and easy to turn up with the hand.

All horses are marked in the same manner, but some naturally, and other, artificially. The natural mark is called *Bague*, and some ignorant persons imagine such horses are marked all their lives, because for many years they find a little hole, or a kind of void in the middle of the separaters and corner teeth; but when the tusks are grown round, as well within as without, and the teeth point forward, there is room to conjecture in proportion as they advance from year to year, what the horse's age may be, without regarding the cavity above-mentioned.

The artificial manner is made use of by dealers and jockies who mark their horses, after the age of being known, to make them appear only six or seven years old. They do it in this manner: they throw down the horse to have him more at command, and, with a steel graver, like what is used for ivory, hollow the middle teeth a little, and the corner ones somewhat more; then fill the holes with a little rosin, pitch, sulphur, or some grains of wheat, which they burn in with a bit of hot wire, made in proportion to the hole. This operation they repeat from time to time, till they give the hole a lasting black, in imitation of nature; but in spite of all they can do, the hot iron makes a little yellowish circle round these holes, like what it would leave upon ivory; they have therefore another trick to prevent detection, which is to make the horse foam from time to time, after having rubbed his mouth, lips, and gums with salt, and the crumbs of bread dried and powdered with salt. This foam hides the circle made by the iron.

Another thing they cannot do, is, to countersfeit young tusks, it being out of their power to make those two crannies above mentioned which are given by nature; with files they make them sharper or flatter, but then they take away the shining natural enamel, so that one may always know, by these tusks, horses that are past seven, till they come to twelve or thirteen.

2. See that the horse be not too deep burnt of the lampas, and that his flesh lie smooth with his bars; for if too deep burnt, his hay and provender will stick herein, which will be very troublesome to him.

3. Look to his hoofs, which if rugged, and as if were seamed one over another; or if they be dry, full, and crusty, or crumbling, it is a sign of very old age; on the contrary, a smooth, moist, hollow, and well sounding hoof, betokens youthfulness in him.

4. His eyes, which if round, full staring, and starting from his head, if the bits over them be filled, smooth, and even with the temples, and no wrinkles either about his brow, or under his eyes, then he is young; but, if otherwise, he has the contrary characters, and it is a sign of old age.

5. His hair; for if a horse that is of any dark colour, grows grisley only about his eye-brows, or underneath his mane, or any horse of a whitish colour should grow meannelled; with either black or red meannels all over his body, then both are signs of old age.

6. Lastly, the bars in his mouth, which if great, deep, and in the handling rough and hard, shew he is old; but if they be soft, shallow, and gentle in the handling, he is young, and in a good state of body; but if he has two fleshy excrescences on the under palate, it will hinder him from drinking.

The following particular remarks about their age, are taken out of M. DE SOLLEYSEL's *Compleat Horseman*.

1. When a horse is two years and a half old, he has twelve foal-teeth, in the fore part of his mouth, and about that time, or soon after, four of them do fall, *viz.* two above and two below, in the very middle; though in some horses, they do not fall till three years: in their stead four others appear, called *nippers* or *gatherers*, much stronger and larger than the foal teeth; and then he is commonly two years and a half old, or at most but three.

2. At three and a half, and sometimes at four years, he casts the next four foal-teeth, *viz.* two above and two below; and in their room come four teeth called *separaters*.

There remain then but four foal-teeth in the corners, which he commonly changes at four years and a half: it is therefore necessary to keep in memory, two and a half, three and a half, and four and a half; that is to say, when a horse has cast two teeth above, and as many below, he is but two years and a half old; when he has cast four teeth above, and as many below, he has attained to the age of three years and a half; and as soon as he has cast six above, and as many below, which is to have them all changed, he is then come to four years and a half.

3. It is to be observed, that the corner teeth in the upper gums, are cast before those in the nether; on the contrary, the under tushes grow out before the upper; and horses are often sick when the tushes of the upper gums cut, but are never so, when the others below come forth.

4. The tushes are preceded by no foal-teeth, but

grow up when a horse is about three years and a half old, and generally appear before the corner teeth are cast.

So soon as the *gatherers* and *separaters* have pierced and cut the gums, they make all their growth in fifteen days, but the corner teeth do not grow so suddenly: yet that does not hinder, but at their very first appearing, they are as thick and broad as the others, but are no higher than the thickness of a crown piece, and very sharp and hollow.

5. When a horse has no more foal-teeth, and his corner teeth begin to appear, he is in his fifth year; that is, he is about four years and a half, and is going in his fifth year.

When he first puts out his corner teeth, they are of equal height with the gums on the outside, and the inside of them is filled with flesh, till he be near five; and when he comes to be five years old, that flesh disappears, and there will remain in the place of it a hollow: that is, they are not so high on the inside as on the outside, which they will come to be, about a year after their first appearing.

So that when a horse's corner teeth are filled with flesh, you may confidently affirm that he is not five.

6. From five to five and a half, the corner teeth remain hollow on the inside, and that part which was filled with flesh is empty.

7. From five and a half to six, the hollow on the inside fills up, and the teeth become flat and equal at top, only a little cavity remains in the middle, resembling the eye of a dry bean, and then they say the horse is entering six.

And so long as a horse's corner teeth are not so high on the inside as the out, he is still said to be but five, tho' he be five and a half, and sometimes six.

8. You may also take notice, that at four years and a half, when the corner teeth appear, and are filled on the inside with flesh, the outside of them will then be about the thickness of a crown piece above the gums, and will so continue till five; and from thence to five and a half, the outward edge will be about the thickness of two crown pieces above the gums: at six they will be near the breadth of one's little finger above the gums, and his tushes will be at their full length.

At seven years they will be about the thickness of the second or ring finger above the gums, and the hollow almost quite worn and gone.

9. At eight years old, the horse will be raz'd; that is, none of his teeth will be hollow, but flat quite over, and near the thickness of the middle finger above the gums.

10. After a horse is raz'd, one cannot judge of his age, but by the length of his fore-teeth, or by his tushes.

As the gums through time grow lean, so they make the teeth appear long; and it is certain that so much the longer a horse's teeth are, he is so much the older; and as he grows old, his teeth appear rough and become yellow: not but that there are some old horses who have very short and white teeth; and people say of such horses, they have a good mouth considering their age.

Some also have a black speck in their teeth, resembling the true mark, a long time after they have passed eight or nine, but then it is not hollow.

11. The tushes are the most certain mark, whereby to know a horse's age.

If a horse be but six, the upper tushes will be a little channelled, or somewhat hollowed and grooved on the inside; and when he is above six they fill up, and become a little round on the inside.

This observation never or rarely fails.

If you feel the tushes of his upper jaw with your finger, and find them worn equal with the palate, the horse is then at least ten years old: this remark seldom proves deficient, unless the horse when young has carried a bigger mouthed bitt than was proper for him.

Young horses always have their under tushes sharp and pointed, pretty long, somewhat edged on both sides, and without any rust upon them; but as they become aged, their tushes grow big and blunt, round and scaly, and in very old horses, they are extremely thick, round and yellow.

12. A horse is said to be *shell-toothed* when he has long teeth, and yet black specks in them, and this mark lasts during life; it is easily known, because the mark appears in the other fore teeth as well as in the corner teeth.

13. In advanced age, the points of the *gatherers* stand outward a little; and when the horse is extremely old, they point almost straight forward; but while he is young, they stand almost straight up, and are just equal with the outer edges of those above.

Sometimes the upper teeth point forwards in this manner; but for the most part the under do it.

14. After the mark is gone, recourse may be had to the horse's legs, to know whether they be neat and good; to his flank if it be well trussed, not too full or swallowed up: as also to his feet and his appetite.

15. In young horses, that part of the nether-jaw bone which is three or four fingers breadth above the beard, is always round, but in old horses sharp and edged; so that a man who is accustomed to it, will before he opens a horse's mouth, judge pretty near of his age. This is a good remark.

16. Some pull the skin of the nether-jaw bone or shoulder a little to them, and if the skin continue long without returning to it's place, it is a sign, they say, the horse is not young, and the longer it is in returning, the older he is: a man should not trust much to this observation, because the skin of a lean horse, though young, will be longer to it's place than the skin of an old horse that is fat and plump.

17. You may also judge of a horse's age by looking on his palate; because as he grows old, the roof of his mouth becomes leaner and drier towards the middle; and those ridges which in young horses are pretty high and plump, diminish as they increase in age; so that in very old horses, the roof of the mouth is nothing but skin and bone.

This remark is good, especially in mares that seldom have any tushes to know their age by.

18. Grey horses become white as they grow old, and when very aged white all over, yet it is not to be inferred from thence that no horses are foaled white, though

though it happens but very rarely: however those that are foaled grey, are known by their knees and hams, which, for the most part, still continue of that colour.

19. If you do not require exactness, but only to know whether the horse be young or old, lift up the upper lip; and if his upper teeth be long, yellow, and over-passing those below, it denotes age; as the contrary signs, *viz* short and white teeth, and the teeth of the upper jaw not over-passing those below, betoken youth.

20 There are some sort of horses, whose teeth always continue white and short, as if they were but six years old.

To prevent being cheated, observe if there be any scratches on the outside of the hollows of the teeth, because the graver sometimes slips and scratches the other parts of the teeth; for then you may conclude him counter-marked; and an artificial hollow, is much blacker than a natural one: take notice also of his upper tushes; the inside of which should be grooved or hollow, till the horse be seven years old: and farther, observe whether he has any signs of age, such as the upper teeth long, over-passing those below, and yellow; the lower part of the nether-jaw-bone, sharp and edged; the under tushes worn, big and scaly; if he have these tokens, and yet appear marked, it is very probable that he is counter-marked. For other particulars; see *Seeling, and Teeth of a horse.*

As to a *hunting, or race horse*, he ought to be five years old, and well weighed before you begin to hunt him.

For tho' it be a frequent custom among noted horsemen to train their horses up to hunting at four years old, and some sooner, yet at that age his joints not being full knit, nor he come to his best strength and courage, he is disabled from performing any matter of speed and toughness; and indeed put to sore labour and toil so young, he runs very great hazard of *strains*, and the putting out of *splents*, *spavins*, *curbs*, and *wind-galls*; besides the daunting of his spirit, and abating his natural courage, insomuch that he will become melancholy, stiff, and rheumatic, and have all the distempers of *old age*, when it might be expected he should be in his *prime*.

AGE OF A HART, is judged by the furniture of his head.—At a year old, there is nothing to be seen but bunches.—At two years old the horns appear more perfectly, but straighter and smaller.—At three they grow into two spars; at four into three; and so increase yearly in branches, till they are six years old; after which their age is not with any certainty to be known by their head. The huntsmen have several other marks, whereby to know an old hart without seeing him; particularly the slot, entries, abatures, soils, sewnets, gate, and fraying post.

AGE OF NEAT CATTLE, *viz.* the *ox*, *cow*, and *bull*, is known by their teeth and horns. At the end of ten months they shed their first fore-teeth, which are replaced by others larger, but not so white; and in three years all the incisive teeth are renewed. These teeth are at first equal, long, and white; but as the animals advance in years, they wear, become unequal, and black. They also shed their horns at the end of three years; and these are replaced by other horns, which like the second teeth, continue. The growth of these horns is not uniform; at first, or in the fourth year of the animal's age, two small pointed horns make their appearance, neatly formed, smooth, and toward the head terminated by a kind of a button. In the following year this button moves from the head, being impelled by a horny cylinder, which lengthening in the same manner, is also terminated by another button, and so on, for these horns continue growing as long as the animal lives. These buttons become annular joints, which are easily distinguished in the horn, and by means of which the age of the animal may be easily known; counting three years for the point of the horn, and one for each of the joints.

AGE OF SHEEP. These animals in the second year have two broad teeth; in their third year they have four broad teeth before; in their fourth year six broad teeth; and in their fifth year eight of the same kind; after which their age cannot certainly be known in this way.—But the age of the ram, and horned sheep, may be always known by their horns, which shew themselves in the first year, and often at the birth, and continue to grow a ring annually to the last period of their lives.

AGE OF GOATS, is known by the same tokens as that of the sheep.

AGIST, properly a bed, or resting place; whence to agist, signifies to take in and feed the cattle of strangers in the king's forest, and to gather money due for the same.

AGISTOR, an officer that takes in cattle of strangers to feed in a forest, and receives for the king's use such tack-money as becomes due upon that account.

In English they are otherwise called Gust-takers, or Gist-takers, and make by letters patent to the number of four, in every forest where his majesty has any pannage.

AID; to aid, assist, or succour a horse, is to sustain and help him to work true, and mark his times or motions with a just exactness. Hence they say,

Assist your horse with the calves of your legs, help him with a nice tender heel, aid him with your tongue: it is not enough to aid this horse with the rod, he must have harsher aids.

Aids are the helps or assistance that the horseman gives from the gentle and moderate effects of the bridle, the spur, the caveson, the poinson, the rod, the action of the legs, the motion of the thighs, and sound of the tongue.

We give these aids to prevent the correction and chastisement that is sometimes necessary in breaking and managing a horse.

You will never ride well unless you be very attentive and active, without precipitancy, in not losing or missing your times, and in giving the aid seasonably, for without that you will accustom your horse to dose upon it. If your horse does not obey the aids of the calves of your legs, help him with the spur, and give him a prick or two.

This sorrel horse has his aids very nice; that is, he takes

takes them with a great deal of facility and vigour:—this gentleman gives his aids very fine, that is, he imitates and rouzes up the horse seasonably, and helps him at just turns, in order to make him mark his time or motions justly.—The barb knows the aid; he obeys or answers the aids, he takes them finely.—You do not give the aids of the caveson with discretion; you make a correction of them, which will baulk your horse. See *Brouiller*.

INNER AIDS, OUTER AIDS. The inner heel, inner leg, inner rein, &c. are called inner aids; the outer heel, outer leg, outer rein, &c. are called outer aids. *See* HELPS.

AIR, is a cadence and liberty of motion, accommodated to the natural disposition of the horse, which makes him work in the manage and rise with obedience, measure, and justness of time. Some riding-masters take the word Air in a strict sense, as signifying the manage that is higher, slower, and more artful or designed than the *terra a terra*; but others give it a larger signification, including under that sense, *a terra a terra*; for if a horse manages well in *a terra a terra*, they say the horseman has happily hit the air of the horse; in general the walk, trot, and gallop, are not accounted airs, and yet some very good riding-masters would understand by air, the motion of the horse's legs upon a gallop. For instance, they will say such a horse has not the natural air; that is, he bends his fore-legs too little; you should give or form an air to your horse, for he has no natural air, and since his haunches are very good he is capable of the manage, if you do but learn him an air.

All your horses have an air naturally; that is, they have motion enough with their fore-legs to take a cadence, if they are put to work at *terra a terra*:—this horse always takes his lesson with his own air:—fix or confirm that horse in the air he has taken:—this sorrel takes the air of the curvets, but that presents himself with an air caprioles:—this mare has no inclination nor disposition to these airs: are terms used in the manage. See PESATE.

High airs, or high manage, are the motions of a horse that rises higher than *terra a terra*, and works at curvets, balotades, croupades, and caprioles. In regard that horse has the beginning or first steps of raised airs, and of himself affects a high manage, you ought to use this his disposition discreetly, that he may not be disheartened or baulked; for your high airs make a horse angry when he is too much put to it; and you ought to supply his shoulders very well before you put him to leap. *See* PESATE and LEAPING.

AIRING OF HORSES. Airing brings several advantages to horses.

First, It purifies their blood, (if the air be clean and pure) it purges the body from many gross and suffocating humours, and so hardens and enseams a horse's fat, that it is not near so liable to be dissolved by ordinary exercise.

Secondly, It teaches him how to let his wind rake equally, and keep time with the other actions and motions of his body.

Thirdly, It sharpens the appetite, and provokes the stomach, (which is of great advantage both to *Gallopers* and *Hunters*, which are apt to lose their stomach either through excess or want of exercise;) for the sharpness of the air will drive the horse's natural heat from the outward to the inward parts, which heat, by furthering concoction, creates an appetite.

MARKHAM directs, if a horse be very fat, to air him before *sun-rise*, and after *sun-setting*; and another author says, that nothing is more wholesome than early and late airings: others again do not approve of this, and urge, that as all things that any ways hinder the strength and vigour of nature are to be avoided; now that extremity of cold, and being out early and late do so, is evidently seen by horses that run broad all winter, which however hardly bred and kept with the best care and fodder, yet cannot by any means be advanced to so good case in winter, as an indifferent pasture will raise them to in summer: and as this holds true of nocturnal colds, it must needs be verified in some proportionate measure of the morning and evening dews, and that piercing cold which is observed to be more intense at the opening and close of the day, than any part of the night.

Besides that, the dews and moist rimes do as much injury to a horse as the sharpest colds or frosts, and if a horse is any ways inclinable to *catarrhs*, *rheums*, or any other cold distempers, he is apt to have the humours augmented, and the disease sensibly increased by these early and late airings.

But if he be not had forth to air till the sun be risen, it will chear his spirits; and it is seen that all horses love the sun's warmth, as in those that lie out a-nights, who will repair to those places where they can have most benefit of the beams of the sun, after he is risen, to relieve them from the coldness of the preceding night.

And besides the benefit of the sun, the air will be more mild and temperate, as that it will rather invigorate than prey upon his spirits, and more increase his strength than impair it.

And as for bringing down a horse's fat, we need not be at a loss for that, and to keep him from being pursive, and too high in flesh, to reduce him to cleanness, and a more moderate state of body: for it is but keeping him out so much longer at a time, both morning and evening, and you will undoubtedly obtain your end by such long *airing*, joined with true sound heats; and it is from the length of airings that you must expect to bring your horse to a perfect wind and true courage.

Mr. LAWRENCE says, no arguments can be required by readers of common sense, in support of the necessity of EXERCISE for horses kept within doors; that is to say, out of their natural state, in order to preserve them in health, or in apt condition for labour; all that remains is to remind men of the duty, to describe its most advantageous method, and due portion. In truth, it is a business in general either totally neglected, or conducted upon very erroneous principles.

Exercise is two-fold, either calculated for common occasions, and the mere preservation of health, or for the purpose of fitting a horse to undergo extraordinary exertions. The first intent may be fully answered by

WALKING EXERCISE alone, and I can, from long experience, assure those keepers of coach and road-horses, who send their boys out to rattle and flurry them over the hard ground, and even the stones of the metropolis, by way of salutary exercise, that they are miserably wide of their mark; but the absurdity of the fact is dreadful indeed, when we know that even sinew-strained, groggy, and foundered horses, are *exercised* in exactly the same mode, and often up and down the stony mews in the metropolis.

This is to add to the mischiefs of real labour, instead of imparting the benefits of recreation; and horses which are hot and choleric, are materially injured in temper and appetite, by the ill-judged and boisterous exercise of ordinary stable-lads. Nobody will suppose these remarks are intended to apply to regular grooms, and convenient grounds. Where the case is otherwise, a horse may be kept in fine condition by regular and fast walking, besides being by such means trained to that excellent pace. Two hours a day, either at once or twice, will be commonly sufficient; otherwise four hours, and what more the horse may demand, the owner had infinitely better perform himself, than intrust it to his servants. Few persons but those acquainted with the tactics of regular stables, have adequate ideas of the efficacy of walking exercise, in keeping down flesh, opening the lungs, and facilitating muscular action. I have heard of a horse which ran three four-mile heats over the sands of Leith, without having previously had a single canter.

The in-door exercise of the loose-stable has been adverted to, that abroad in the paddock, or enclosed yard, is admirable, where a horse may be daily turned out, the weather permitting, with or without his sheet, as he has been accustomed, with the happiest effects to his limbs and flesh. Unsound or shaken horses should never be permitted to exercise themselves, but where convenience admits not, they ought to be led, never ridden, on any stupid or indolent pretence whatever.

AIRY, or AERY, a term used to express the rest of a hawk or eagle.

ALMOND TUMBLER, a pigeon well known by that name among fancyers, though many call it the ermine tumbler. It was originally bred from the common tumbler, which in shape and make it resembles very much. It is esteemed by the generality of fancyers, the most beautiful of the pigeon tribe. The greater the variety of colours in the flight and tail, particularly if the ground is of a bright yellow colour, the greater is its value; for those of a fine yellow ground are by far the hardest to acquire, and if the tail is somewhat tinged with black, it is an additional beauty. There are some of these pigeons that have a mixture of three colours only, yellow, white, and black, but these are by no means common. The almond tumbler does not arrive to the meridian of its beauty, till it has several times moulted, but when it is very old, changes to a mottled, splashed, or some other colour. The most approved fancyers advise the matching of a yellow, a splashed, or black grizzle, with an almond, and by that means heighten the colours; those of a black colour bred from almonds, are much better shaped about the head and beak than the almonds themselves, and the tail is frequently handsomer by having a strong glow of yellow; this kind matched with an almond will produce handsome birds. They often produce a pale yellow or buff, and this is an excellent colour to match with such as are very high grounded. However carefully and well bred these pigeons may be, a faint mixture of ash or blue will sometimes appear, which is considered rather a defect.

AMBLING; a motion in a horse that is much desired, very useful, but not easily to be obtained the right way, notwithstanding the vain confidence of the various professors of it, who, tho' they so boldly assert the success, yet differ in their methods to effect it: for some will teach it in new ploughed fields; others will teach a horse to amble from the gallop; many use no better way for it than by weights.

Some amble in hand, not ridden; others by the help of thinner shoes, made on purpose: many fold fine soft lists about the gambrels of the horse; some amble by the hand only, others use the tramel, which indeed if rightly managed is good: but the best way of all is to try with your hands, by a gentle and deliberate racking and thrusting of the horse forward, by helping him in the weak part of the mouth with your snaffle, which must be smooth, big, and full; and correcting him first on one side, then on another, with the calves of your legs, and sometimes with a spur.

If you can make him of himself fall into an amble, though shuffling disorderly, there will be much labour saved; for that aptness to amble will make him, with more ease and less danger in the use of the tramel, find the motion without stumbling or amazement; but if you find he will by no means either apprehend the motions or intentions, then struggle not with the animal, but fall to the use of the tramel, which see for that purpose under TRAMEL. *See Rules for Buying Horses.*

AMPHIBIOUS ANIMALS, are such as live partly on the land and partly in the water, as badgers, otters, ducks, &c.

ANBURY, or AMBURY, a kind of wen, or spungy wart, growing upon any part of a horse's body, full of blood; the manner of curing of which, is to tie it about hard with a thread, or rather with a horse-hair, and in eight days it will fall off, then strew upon it the powder of verdigrease to kill it at the root, and heal it up again with green ointment; but if it be so flat that nothing can be bound about it, then take it away with an incision-knife close to the skin, or else burn it with a sharp hot iron, cutting it round about so deep as to leave none of the root behind; and after having applied turpentine and hog's lard melted together, heal it up as before; but if this wart grows in a sinewy part, where a hot iron is improper, eat out the core with oil of vitriol, or white sublimate, then stop the hole with flax dipt in the white of an egg, for a day or two, and at last dry it up with unslaked lime and honey.

Or, for these warts put 3 ounces of powder of copperas in a crucible, with 1 ounce of arsenic powdered; place the crucible in the middle of a charcoal fire, stirring the substance, but carefully avoid the malignant steams: when the matter appears somewhat reddish, take

take the crucible off the fire, and after it is cool, break and beat the matter into a very fine powder, incorporate 4 ounces of this powder with 5 ounces of album rasis, and make an ointment to be applied cold to warts, anointing them lightly every day, and they will fall off like kernels of nuts, without causing any swellings in the legs, if the application be ordered so as only the warts be anointed, and the horse be not worked or ridden during the cure: and after the warts fall off, dress the sore with the Countess's ointment; which see described under its proper head.

ANGLING, is an art, which as it pleads great antiquity, so the knowledge thereof is with much difficulty to be obtained; but some observations concerning it will not be amiss. And first, the angler must remember by no means to fish in light and dazzling apparel, but his cloathing must be of a dark sky colour: and at the places where he uses to angle, he should once in four or five days cast in corn boiled soft; if for carp or tench, oftener: he may also cast in garbage, beasts livers, worms chopt in pieces, or grains steeped in blood and dried, which will attract the fish thither: and in fishing, to keep them together, throw in half a handful of grains of ground malt, which must be done in still water; but in a stream you must cast your grains above your hook, and not about it, for as they float from the hook, so will they draw the fish after them. Now if you would bait a stream, get some tin boxes made full of holes no bigger than just fit for a worm to creep through, which fill therewith, and having fastened a plummet to sink them, plunge them into the stream, with a string fastened thereto, that they may be drawn out at pleasure; by the smallness of the holes aforesaid, the worms can crawl out but very leisurely, and as they crawl the fish will resort about them.

Now if in a stream you would bait for salmon, trout, umber, or the like, take some blood, and therewith incorporate fine clay, barley and malt, ground, adding some water, all which make into a paste with ivy gum, then form it into cakes and cast them into the stream: if you find your bait take no effect in attracting of the fish, you may conclude some pike or perch lurk there to seize their prey, for fear of which the fish dare not venture thereabout; take therefore your troll, and let your bait be either brandlings or lob-worms, or you may use gentles or minows, which they will greedily snap at.

As for your rod, it must be kept neither too dry nor too moist, lest the one make it brittle, and the other rotten; and if it be sultry dry weather, wet your rod a little before you angle, and having struck a good fish, keep your rod bent, and that will hinder him from running to the end of the line, whereby he will either break his hold or hook: and if you would know what bait the fish loves best, at the time of your fishing, when you have taken one, slit the gill, and open and take out the stomach, opening it without bruising, and there you will find what he fed on last, and had a fancy to, whereby you may bait your hook accordingly.

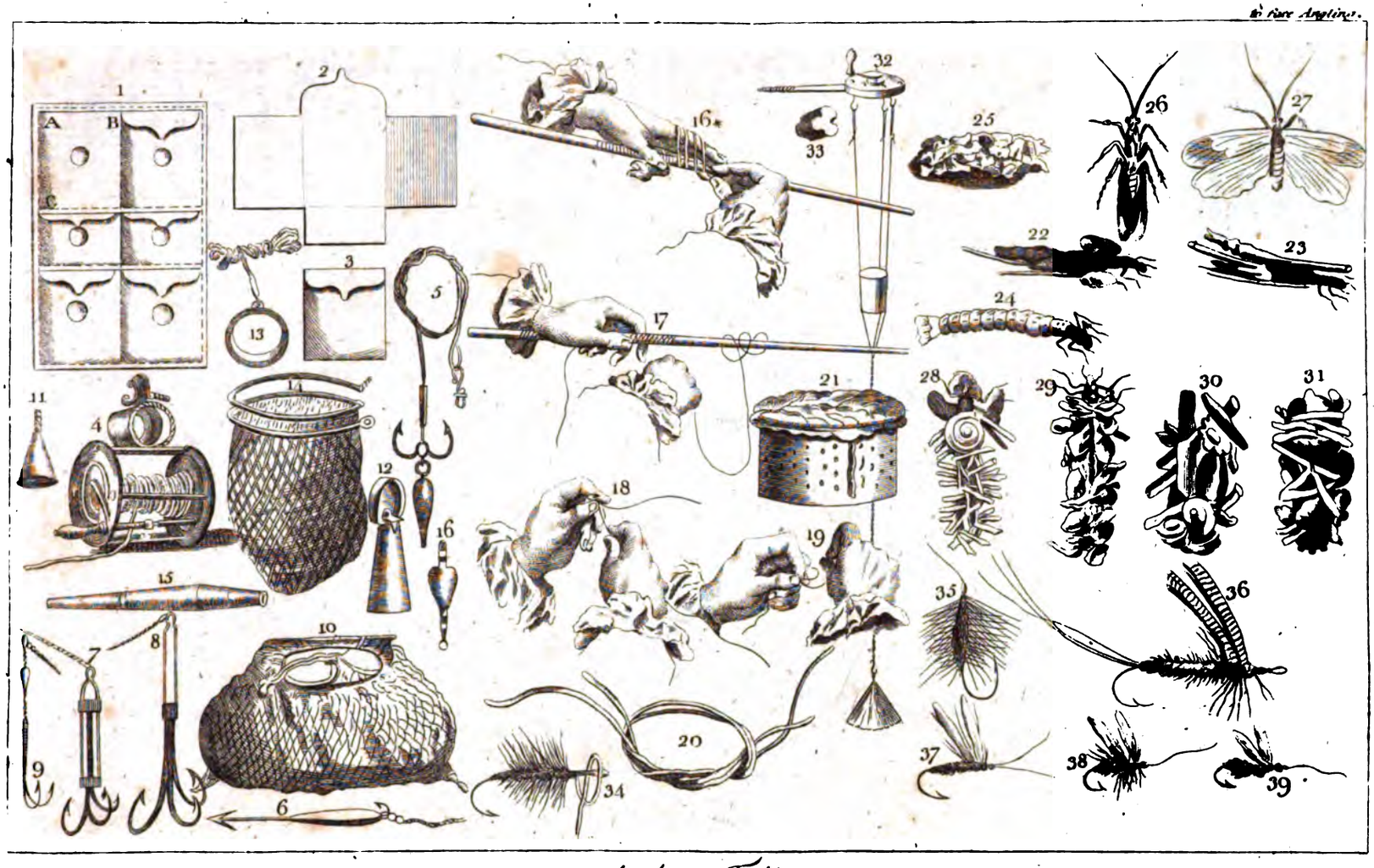
When you fish, shelter yourself under some bush or tree, so far from the brink of the river, that you can only discern your float; for fish are timorous, and very easy to be affrighted: and you will experimentally find the best way of angling with a fly, is down the river, and not up; neither need you ever to make above six trials in a place, either with fly or ground bait, when you angle for trout, for by that time he will either offer or take, or refuse the bait, and not stir at all; but if you would have fish bite eagerly, and without suspicion, you may present them with such baits as they are naturally inclined to, and in such manner as they are accustomed to receive them; and if you use pastes for baits, you must add flax or wool, with which mix a little butter to preserve it from washing off the hook: and lastly, observe,

That the eyes of such fishes as you kill, are most excellent baits on the hook for almost all sorts of fish.

Directions for FLY-FISHING, *with a List of such necessary Ingredients as every* ANGLER *should be supplied with.*

First, let your rod be light, and very gentle, the best are of two pieces, (See the article ROD) and let not your line exceed, (especially for three or four links next to the hook) three or four hairs at the most, though you may fish a little stronger above in the upper part of your line: but if you can attain to angle with one hair, you shall have more rises and catch more fish. You must be sure not to cumber yourself with too long a line, as most do: and before you begin to angle, endeavour to have the wind on your back, and the sun, if it shines, to be before you, and to fish down the stream; and carry the point or top of your rod downward, by which means the shadow of yourself and rod will be the least seen by the fish; for the sight of any shade alarms the fish, and spoils your sport, of which you must take great care. In the middle of *March*, till which time a man should not catch a trout, or in *April*, if the weather be dark, or a little windy or cloudy, the best fishing is with the palmer-worm, but of these there are divers kinds, or at least of divers colours; these and the *May*-fly are the ground of all fly-angling, which are to be thus made:

First, you must arm your hook with the line in the inside of it, then take your scissars, and cut so much of a brown mallard's feather as in your own reason will make the wings of it, you having withal regard to the bigness or littleness of your hook; then lay the outmost part of your feather next to your hook, then the point of your feather next the shank of your hook; and having so done, whip it three or four times about the hook with the same silk with which your hook was armed; and having made the silk fast, tack the hackle of a cock or capon's neck, or a plover's top, which is usually better; take off the one side of the feather, and then take the hackle, silk, or crewel, gold or silver thread, make these fast at the bent of the hook; that is to say, below your arming; then you must take the hackle, the silver or gold thread, and work it up to the wings, shifting or still removing your finger, as you turn the silk about the hook: and still looking at every stop or turn, that your gold, or what materials soever you make your fly of, do lie right and neatly; and



Angling Tackle.

and if you find they do so, when you have made the head, make all fast: then work your hackle up to the head, and make that fast; and with a needle or pin divide the wing into two, with the arming silk whip it about cross ways betwixt the wings, and with your thumb you must turn the point of the feather towards the bent of the hook, and work three or four times about the shank of the hook, view the proportion, and if all be neat and to your liking, fasten.

Indeed, no direction can be given to make a man of a dull capacity able to make a fly well; and yet this, with a little practice, will help an ingenious angler in a good degree: but to see a fly made by an artist in that kind, is the best teaching to make it; and then an ingenious angler may walk by the river side, and mark what flies fall on the water that day, and catch one of them, if he sees the trout leap at a fly of that kind: having always hooks ready hung, with him, and having a bag also always with him, with bear's hair, or the hair of a brown or sad-coloured heifer, hackles of a cock or capon, several coloured silks, and crewel to make the body of the fly, the feathers of a drake's head, black or brown sheep's wool, or hog's wool, or hair, thread of gold and of silver; silk of several colours, especially sad-coloured, to make the fly's head; and there be also other coloured feathers, both of little birds and of speckled fowl; having those with him in a bag, and trying to make a fly, though he miss at first, yet shall he at the last hit it better, even to such a perfection, as none can well teach him; and if he hit to make his fly right, and have the luck to hit also where there is store of trouts, a dark day, and a right wind, he will catch such numbers of them, as will encourage him to grow more and more in love with the art of fly-making.

Not having particularly enumerated the materials necessary for fly-making, it will not be improper, once for all, to do it. First, you must be provided with bear's hair of divers colours; as grey, dun, light and dark coloured, bright brown, and that which shines: also camel's hair, dark, light, and of a colour between both: badger's hair, or fur: spaniel's hair from behind the ear, light and dark brown, blackish and black: hog's down, which may be had, about Christmas, of butchers, or rather of those that make brawn; it should be plucked from under the throat, and other soft places of the hog, and must be of the following colours, *viz.* black, red, whitish, and sandy; and for other colours, you may get them dyed at a dyer's; seal's fur is to be had at the trunk-makers; get this also dyed of the colours of cow's and calf's hair, in all the different shades, from the light to the darkest brown; you will then never need cow's or calf's hair; both which are harsh, and will never work kindly, nor lie handsomely: get mohairs, black, blue, purple, white, violet; Isabella, which colour is described as of a bright gold colour purple: philomot, from *feuille morte*, a dead leaf, yellow and orange: camlets, both hair and worsted, blue, yellow, dun, light and dark brown, red violet, purple, black, horse-flesh, pink, and orange colours. Some recommend the hair of abortive colts and calves; but seal's fur, dyed as above, is much better.

A piece of an old Turkey carpet will furnish excellent dubbing, untwist the yarn, and pick out the wool, carefully separating the different colours, and lay it by.

Some use for dubbing barge-sail, concerning which the reader is to know, that the sails of west-country and other barges, when old, are usually converted into tilts, under which there is almost a continual smoke arising from the fire and the steam of the beef-kettle which all such barges carry, and which, in time, dyes the tilt of a fine brown; this would be excellent dubbing, but that the material of these sails is sheep's wool, which soaks in the water, and soon becomes very heavy: however, get of this as many different shades as you can, and have seal's fur and hog-wool, dyed to match them; which, by reason they are more turged, stiff, and light, and so float better, are in most cases to be preferred to worsted, crewels, and, indeed, to every other kind of wool; and observe that the hog-wool is best for large, and the seal's fur for small flies.

Get also furs of the following animals, *viz.* the squirrel, particularly from his tail; fox cub, from the tail where it is downy, and of an ash-colour; an old fox, an old otter, otter cub, badger, fulimart, or filmart; a hare, from the neck, where it is of the colour of withered fern; and, above all, the yellow fur of the martern, from the gills or spots under the jaws. All these, and almost every other kind of fur, are easily got at the furrier's.

Hackles are a very important article in fly-making: they are the long slender feathers that hang from the head of a cock down his neck; there may also be fine ones got from near his tail; be careful that they are not too rank, which they are when the fibres are more than half an inch long; and for some purposes these are much too big: be provided with those of the following colours, *viz.* red, dun, yellowish, white, orange, and perfect black, and whenever you meet, alive or dead, with a cock of the game-breed, whose hackle is of a strong brown-red, never fail to buy him; but observe that the feathers of a cock chicken, be they ever so fine for shape and colour, are good for little; for they are too downy and weak to stand erect after they are once wet, and so are those of the Bantom cock.

Feathers are absolutely necessary for the wings, and other parts of flies; get therefore feathers from the back and other parts of the wild mallard, or drake, the feathers of a partridge, especially those red ones that are in the tail: feathers from a cock pheasant's breast and tail, the wings of a blackbird, a brown hen, of a starling, a jay, a land-rail, throstle, a fieldfare, and a water coot; the feathers from the crown of the pewit, plover, or lapwing; green and copper-coloured peacock's and black ostrich herle; feathers from a heron's neck and wings; and remember, that in most instances, where the drake's or wild mallard's feather is hereafter directed, that from a starling's wings will do much better, as being of a finer grain, and less spungy.

Be provided with marking-silk of all colours, fine but very strong, flaw silk, gold and silver flatted wire or twist, a sharp knife, hooks of all sizes, hog's bristles for loops to your flies, shoemaker's wax, a large needle to raise your dubbing when flatted with working, and a small but sharp pair of scissars.

And lastly, if any materials required in the subsequent list of flies may have been omitted in the foregoing catalogue, be careful to add them to your former stock, as often as you shall find any such omissions.

Remember, with all your dubbing, to mix bear's hair and hog's wool, which are stiff, and not apt to imbibe the water, as the fine furs, and most other kind of dubbing do: and remember also, that martern's fur is the best yellow you can use.

The use of a bag is attended with many inconveniences, of which, the mixing and wasting your materials are not the least: to prevent which the following method is recommended: take a piece of fine grained parchment, of seven inches by nine, and fold it so that the size and proportion of it will be that of a small octavo volume; then open it, and through the first leaf, with a sharp penknife and ruler, make three cross cuts, at the same proportionable distance as those in Fig. 1, in the *Plate* of FISHING INSTRUMENTS, and with a needle and silk stitch the two leaves together, as in that figure; let each of the margins be half an inch at least.

Then with a pair of compasses, take the distance from A to B, and set it in the middle of a small piece of parchment; and likewise set on the same distance to the right and left, and at each extremity cut off, with a penknife and ruler, the spare parchment, observing that the sides are exactly parallel.

At about a quarter of an inch from the top, make a cut through the first and third divisions, and, with a pair of scissars, snip out the loose pieces.

Then set on the distance from A to C, and cut as before, leaving the middle division an inch longer at bottom than the others: when this is done, your parchment will have the shape and proportion of Fig. 2. and you may cut the upper flap as it appears there.

Be careful that the cuts, and indeed all your work, are exactly square; and when this is done, turn in the sides and ends of the parchment, so cut as before, and press the folds with a folding-stick, and you have one pocket, shaped as Fig. 3. which put into the first partition.

Pursue the same method with the same pockets, and those for the other partitions; and in this manner proceed till you have completed six leaves, which are to make the first of your book; the larger of these pockets are to hold hog's wool, seal's fur, and bear's hair, and the smaller the finer furs; which are those of the martern, fox cub, *&c.*

In each of the six divisions, in every leaf, with a sadler's hollow punch, make a hole; to which end take a thin narrow stick of beach, or any hardish wood, and when the pocket is in its place, put the stick down into the pocket, and, observing the center of the division, give the punch a smart blow with a mallet; these holes will shew what is contained in each of the pockets.

The next leaf may be single; stitch it across with double silk diagonally, and cross those stitches with others, and the spaces will be of a lozenge-shape; let the stitches be half an inch in length; into these you are to tuck your dubbing, when mixed ready for use.

The next leaf should be double, stitched with a margin as the others; and through the first fold cut a lozenge, as big as the size will allow of; into this you may tuck three or four wings of small birds, as the starling, land-rail, throstle, *&c.* At the back of this leaf sew two little parchment straps, of half an inch wide, very strong; through which put a small, but very neat and sharp pair of scissars.

You may, on another single leaf, make four or five cross bars of long stitches, through which, as well on the back, as the foreside, you may put large feathers, namely, those of a cock pheasant's tail, a ruddy brown hen, *&c.*

The next three leaves should be double; stitch them through the middle, from side to side, and with the compasses describe a circle of about an inch and half diameter; cut out the parchment within the circle; under some of the margins, when the leaves are stitched together, you may tuck peacock's and ostrich herle, and in others lay neatly the golden feathers of a pheasant's breast, and the gray and dyed yellow mail of a mallard.

Three double leaves more, with only two large pockets in each, may be allotted for silk of various colours, gold and silver twist, and other odd things; six single leaves more will compleat your book; stitch them from side to side with distances of half an inch, and cross those stitches with others, from top to bottom, with somewhat greater distances; and into every other space, reckoning from top to bottom, lay neatly and smoothly a starling's feather; do the same on the backside, and so for two leaves.

The other leaves you may fill with land-rail's and other small feathers, plover's tops, and red and black hackles.

The first and last leaves of your book may be double, stitched in the middle, from side to side, but open at the edges: which will leave you four pockets like those of a common pocket-book; into which you may put hooks, and a small piece of wax, wrapped in a bit of glove-leather.

To the page that contains the mixed dubbings, there should be an index, referring to every division contained in it, and expressing what fly each mixture is for.

When your book is thus prepared, send it to the binder, with directions to bind it as strong as possible; let him leave a flap to one of the boards, and fasten to it a yard of ribband to tie it.

The usefulness and manifold conveniences of a book are apparent; and whoever will be at the pains of making such a one as this, will find it preferable to a magazine-bag.

PIKE ANGLING.

The pike loves a still, shady, unfrequented water, and usually lies amongst or near weeds; such as flags, bulrushes, candocks, reeds, or in the green fog that sometimes covers standing waters, though he will sometimes shoot out into the clear stream. He is sometimes caught at the top, and in the middle, and often, especially in cold weather, at the bottom.

Pikes

Pikes are called jacks till they become twenty-four inches long.

The bait for pike, beſide thoſe mentioned under the *Article* PIKE, are a ſmall trout, the loach and miller's thumb, the head end of an eel, with the ſkin taken off below the fins, a ſmall jack, a lob-worm, and in winter, the fat of bacon. And notwithſtanding what others ſay againſt baiting with a perch, it is confidently aſſerted, that pikes have been taken with a ſmall perch, when neither a roach nor bleak would tempt them.

Obſerve that all your baits for pike, muſt be as freſh as poſſible. Living baits you may take with you in a tin kettle, changing the water often; and dead ones ſhould be carried in freſh bran, which will dry up the moiſture that otherwiſe would infect and rot them.

A method of fiſhing for pike, which has been thought worthy of a diſtinct treatiſe; for which method, and for the ſnap, take theſe directions; and firſt for trolling:

And note that, in trolling, the head of the bait-fiſh muſt be at the bent of the hook; whereas, in fiſhing at the ſnap, the hook muſt come out at or near his tail. But the eſſential difference between theſe two methods is, that in the former the pike is always ſuffered to pouch or ſwallow the bait, but in the latter you are to ſtrike as ſoon as he has taken it.

The rod for trolling ſhould be about three yards and a half long, with a ring at the top for the line to run through; you may fit a trolling-top to your fly-rod, which need only be ſtronger than the common fly-top.

Let your line be of green or ſky-coloured ſilk, thirty yards in length, which will make it neceſſary to uſe the winch, as is before directed, with a ſwivel at the end.

The common trolling-hook for a living-bait, conſiſts of two large hooks, with one common ſhank, made of one piece of wire, of about three quarters of an inch long, placed back to back, ſo that the points may not ſtand in a right line, but incline ſo much inwards, as that the ſhank may form an angle little leſs than equilateral. At the top of the ſhank is a loop left in the bending the wire, to make the hook double, through which is put a ſtrong twiſted braſs wire of about ſix inches long; and to this is looped another ſuch link, but both ſo looſe that the hook and the lower link may have room to play: to the end of the line faſten a ſteel ſwivel.

But there is a ſort of trolling-hook different from that already deſcribed, and to which it is thought preferable, which will require another management; this is no more than two ſingle hooks tied back to back with a ſtrong piece of gimp between the ſhanks; in the whipping the hooks and the gimp together, make a ſmall loop, and take into it two links of chain of about an eighth of an inch diameter; and into the lower link, by means of a ſmall ſtaple of wire, faſten, by the greater end, a bit of lead of a conical figure, and ſomewhat ſharp at the point. Theſe hooks are to be had at the fiſhing-tackle ſhops, ready fitted up; but ſee the form of them, Fig. 5.

This latter kind of hook is to be thus ordered, *viz.* put the lead into the mouth of the bait-fiſh, and ſow it up, the fiſh will live ſome time; and though the weight of the lead will keep his head down, he will ſwim with nearly the ſame eaſe as if at liberty.

But if you troll with a dead bait, as ſome do, for a reaſon which the angler will be glad to know, *viz.* that a living-bait makes too great a ſlaughter among the fiſh, do it with a hook, of which the following paragraph contains a deſcription.

Let the ſhank be about ſix inches long, and leaded from the middle as low as the bent of the hook, to which a piece of very ſtrong gimp muſt be faſtened by a ſtaple, and two links of chain; the ſhank muſt be barbed like a dart, and the lead a quarter of an inch ſquare: the barb of the ſhank muſt ſtand like the fluke of an anchor, which is placed in a contrary direction to that of the ſtock, ſee Fig. 6. Let the gimp be about a foot long, and to the end thereof fix a ſwivel: to bait it, thruſt the barb of the ſhank into the mouth of the bait-fiſh, and bring it out at the ſide near the tail: when the barb is thus brought through, it cannot return, and the fiſh will lie perfectly ſtraight, a circumſtance that renders the trouble of tying the tail unneceſſary.

There is yet another ſort of trolling-hook, which is, indeed, no other than what moſt writers on this ſubject have mentioned; whereas the others, here deſcribed, are late improvements; and this is a hook, either ſingle or double, with a long ſhank, leaded about three inches up the wire with a piece of lead about a quarter of an inch ſquare at the greater or lower end; fix to the ſhank an armed wire about eight inches long: to bait this hook thruſt your wire into the mouth of the fiſh, quite through his belly, and out at his tail, placing the wire ſo as that the point of the hook may be even with the belly of the bait-fiſh, and then tie the tail of the fiſh with ſtrong thread, to the wire; ſome faſten it with a needle and thread, which is a neat way.

Both with the troll and at the ſnap, cut away one of the fins of the bait-fiſh cloſe at the gills, and another behind the vent on the contrary ſide, which will make it play the better.

The bait being thus fixed, is to be thrown in, and kept in conſtant motion in the water, ſometimes ſuffered to ſink, then gradually raiſed; now drawn with the ſtream, and then againſt it, ſo as to counterfeit the motion of a ſmall fiſh in ſwimming. If a pike is near, he miſtakes the bait for a living fiſh, ſeizes it with prodigious greedineſs, goes off with it to his hold, and in about ten minutes pouches it. When he has thus ſwallowed the bait, you will ſee the line move, which is the ſignal for ſtriking him; do this with two luſty jerks, and then play him.

The other way of taking pike, *viz.* with the ſnap, is as follows:

Let the rod be twelve feet long, very ſtrong and taper, with a ſtrong loop at the top to faſten your line to; your line muſt be about a foot ſhorter than the rod, and much ſtronger than the trolling-line.

And here it is neceſſary to be remembered, that there are two ways of ſnapping for pike, *viz.* with the live and with the dead ſnap.

For the live ſnap, there is no kind of hook ſo proper

as the double ſpring hook; the form whereof, in two views, is given in the plates, Fig. 7. and 8. To bait it, nothing more is neceſſary than to hang the bait fiſh faſt by the back fin to the middle hook, where he will live a long time.

Of hooks for the dead ſnap there are many kinds. Fig. 9. of the plate, is a repreſentation of one, which after repeated trials, has been found to excel all others hitherto known; the deſcription and uſe of it is as follows, *viz.* Whip two hooks, of about three-eighths of an inch in the bent, to a piece of gimp, in the manner directed for that trolling-hook, a view of which is given in the plate, Fig. 5. Then take a piece of lead, of the ſame ſize and figure as directed for the trolling-hook above-mentioned, and drill a hole through it from end to end: to bait it, take a long needle, or wire; enter it in at the ſide, about half an inch above the tail, and with it paſs the gimp between the ſkin and the ribs of the fiſh, bring it out at his mouth; then put the lead over the gimp, draw it down into the fiſh's throat, and preſs his mouth cloſe, and then, having a ſwivel to your line, hang on the gimp.

In throwing the bait, obſerve the rules given for trolling; but remember, that the more you keep it in motion, the nearer it reſembles a living fiſh.

When you have a bite, ſtrike immediately the contrary way to that which the head of the pike lies, or to which he goes with the bait; if you cannot find which way his head lies, ſtrike upright with two ſmart jerks, retiring backwards as faſt as you can, till you have brought him to a landing-place, and then do as before is directed.

As the pike ſpawns in *March*, and before that month rivers are ſeldom in order for fiſhing, it will hardly be worth while to begin trolling till *April*; after the weeds will be apt to be troubleſome. But the prime month in the year for trolling is *October*, when the pike are fattened by their ſummer's feed, the weeds are rotted, and by the falling of the waters the harbours of the fiſh are eaſily found.

Chuſe to troll in clear, and not muddy water, and in windy weather, if the wind be not eaſterly.

Some uſe in trolling and ſnapping two or more ſwivels to their line, by means whereof the twiſting of the line is prevented, the bait plays more freely, and, though dead, is made to appear as if alive; which, in rivers, is doubtleſs an excellent way: but thoſe who can like to fiſh in ponds or ſtill waters, will find very little occaſion for more than one.

The pike is alſo to be caught with a minnow, for which method take the following directions:

Get a ſingle hook, ſlender, and long in the ſhank; let it reſemble the ſhape of a ſhepherd's crook; put lead upon it, as thick near the bent as will go into the minnow's mouth; place the point of the hook directly up the face of the fiſh; let the rod be as long as you can handſomely manage, with a line of the ſame length, caſt up and down, and manage it as when you troll with any other bait: if, when the pike has taken your bait, he runs to the end of the line before he hath gorged it, do not ſtrike, but hold ſtill only, and he will return back and ſwallow it: but if you uſe that bait with a troll, I rather prefer it before any bait that I know.

In landing a pike great caution is neceſſary, for his bite is eſteemed venomous: the beſt and ſafeſt hold you can take of him is by the head, in doing which, place your thumb and finger in his eyes.

If you go any great diſtance from home, you will find it neceſſary to carry with you many more things than are here enumerated, moſt of which may be very well contained in a wicker panier of about twelve inches wide, and eight high, and put into a hawking-bag, of the form as in Fig. 10. The following is a liſt of the moſt material ingredients: A rod with a ſpare top, lines coiled up, and neatly laid in round flat boxes; ſpare links, ſingle hairs, waxed thread, and ſilk; plummets of various ſizes, of the form of Fig. 11. floats of all kinds, and ſpare caps: worm-bags, and a gentle-box, Fig. 12. in the plate; hooks of all ſizes, ſome whipped two ſingle hairs; ſhot, ſhoemaker's wax, in a very ſmall gallipot covered with a bit of leather; a clearing ring, tied to about ſix yards of ſtrong cord, of the ſhape of Fig. 13. the uſe of this is to diſengage your hook when it has caught a weed, *&c.* in which caſe take off the butt of your rod, and ſlip the ring over the remaining joints, and holding it by the cord, let it gently fall; a landing-net, the hoop whereof muſt be of iron, and made with joints to fold, in the ſhape of Fig. 14. and a ſocket to hold a ſtaff, Fig. 15. Take with you alſo ſuch baits as you intend to uſe. That you may keep your fiſh alive, be provided with a ſmall hoop-net to draw cloſe to the top, and never be without a ſharp knife and a pair of ſciſſars; and if you mean to uſe the artificial fly, have your fly-book always with you.

And for the more convenient keeping and carriage of lines, links, ſingle hairs, *&c.* take a piece of parchment or vellum, ſeven inches by ten; on the longer ſides ſet off four inches, and then fold it croſs wiſe, ſo as to leave a ſlip of two inches, of which hereafter; then take eight or ten pieces of parchment, of ſeven inches by four, put them into the parchment or vellum, ſo folded, and ſew up the ends; then cut the flap rounding, and fold it down like a pocket-book: laſtly, you may, if you pleaſe, bind the ends and round the flap with red tape.

And having ſeveral of theſe caſes, you may fill them with lines, *&c.* proper for every kind of fiſhing; always remembering to put into each of them a gorger, or ſmall piece of cane, of five inches long, and a quarter of an inch wide, with a notch at each end; with this, when a fiſh has gorged your hook, you may, by putting it down his throat till you feel the hook, and holding the line tight while you preſs it down, eaſily diſengage it.

And if you ſhould chance to break your rod, take the following directions for mending it: cut the two broken ends with a long ſlope ſo that they fit neatly together; then ſpread ſome wax very thin on each ſlope, and, with waxed thread or ſilk, according as the ſize of the broken part requires, bind them very neatly together: to faſten off, lay the fore finger of your left hand over the binding, and with your right, make four turns of the thread over it; then paſs the end of your thread between the under ſide of your finger and rod, and

and draw your finger away; lastly, with the fore finger and thumb of your right hand, take hold of the first of the turns, and gathering as much of it as you can, bind on till the three remaining turns are wound off, and then take hold of the end, which you had before put through, and then draw close, see Fig. 16*, 17.

For whipping on a hook take the following directions: place the hook betwixt the fore finger and thumb of your left hand, and, with your right, give the waxed silk three or four turns round the shank of the hook: then lay the end of the hair on the inside of the shank, and with your right hand whip down, as in Fig. 18; when you are within four turns of the bent of the hook, take the shank between the fore finger and thumb of your left hand, and place the end of the silk close by it, holding them both tight, and leaving the end to hang down, then draw the other part of the silk into a large loop, and, with your right hand turning backwards, as in Fig. 19. continue the whipping for four turns, and draw the end of the silk, which has all this while hung down under the root of your left thumb, close, and twitch it off.

To tie a water knot, lay the end of one of your hairs about five inches or less, over that of the other, and through the loop, which you would make to tie them in the common way, pass the long and the short end of the hairs, which will lie to the right of the loop, twice, and wetting the knot with your tongue, draw it close, and cut off the spare hair, see Fig. 20.

The straw worm, or ruff coat, I take it is the most common of any, and is found in the river *Colne*, near *Uxbridge;* the *New River*, near *London;* the *Wandle*, which runs through *Carshalton* in *Surry;* and in most other rivers. Two of this species of insects, drawn from nature, are given in the plate, Fig. 22 and 23; and Fig. 24 is the appearance of the cadis when pulled out of its case. As to the straw-worm, I am assured by those conversant with it, that it produces many and various flies, namely, that which is called about *London* the withy-fly, ash coloured duns, of several shapes and dimensions, as also light and dark browns; all of them affording great diversion in northern streams.

To preserve cadis, grashoppers, caterpillars, oak-worms, or natural flies, the following is an excellent method: cut a round bough of fine green-barked withy, about the thickness of one's arm, and taking off the bark about a foot in length, turn both ends together, into the form of an hoop, and fasten them with a pack-needle and thread; then stop up the bottom with a bung-cork: into this put your baits, tie it over with a colewort-leaf, and, with a red-hot wire bore the bark full of holes, see Fig. 21, and lay it in the grass every night; in this manner cadis may be kept till they turn to flies. To grashoppers you may put grass.

But, that I may not mislead: I take the ruff coat to be a species of cadis inclosed in a husk about an inch long, surrounded by bits of stone, flints, bits of tile, *&c.* very nearly equal in their size, and most curiously compacted together like mosaic.

One of the insects last described, was in the river *Wandle*, in *Surry;* I put it into a small box, with sand in the bottom, and wetted it five or six times a-day, for five days; at the end whereof, to my great amazement, it produced a lovely large fly, nearly of the shape of, but less than a common white-butterfly, with two pair of cloak wings, and of a light cinnamon-colour: the figure of the husk, and also of the fly, in two positions, is given in Fig. 25, 26, 27. This fly, upon inquiry, I find is called, in the north, the large light brown; in *Ireland*, and some other places, it has the name of the flame-coloured brown; and the method of making it, is given in the additional list of flies for *September*; where, from its smell, the reader will find it called the large foetid light brown.

There are many other kinds of these wonderful creatures, which for the reader's greater satisfaction, in the Figures 28, 29, 30, 31, are accurately delineated.

For your float, in slow streams, a neat round goose-quill is proper; but for deep or rapid rivers, or in an eddy, the cork, shaped like a pear, is indisputably the best; which should not, in general, exceed the size of a nutmeg; let not the quill, which you put through it, be more than half an inch above and below the cork; and this float, though some prefer a swan's quill, has great advantage over a bare quill; for the quill being defended from the water by the cork, does not soften, and the cork enables you to lead your line so heavily, as that the hook sinks almost as soon as you put it into the water; whereas, when you lead but lightly, it does not get to the bottom till it is near the end of your swim. See the form of the float, Fig. 16, and in leading your line, be careful to balance them so nicely, that a very small touch will sink them; some use for this purpose lead shaped like a barley-corn, but there is nothing better to lead with than shot, which you must have ready cleft always with you; remembering, that when you fish fine, it is better to have on your line a great number of small than a few large shot.

Whip the end of the quill round the plug with fine silk, well waxed; this will keep the water out of your float, and preserve it greatly.

In fishing with a float, your line must be about a foot shorter than your rod; for if it is longer, you cannot so well command your hook when you come to disengage the fish.

Perch and chub are caught with a float, and also gudgeons, and sometimes barble and grayling.

For carp and tench, which are seldom caught but in ponds, use a very small goose or a duck-quill float; and throw in every now and then a bit of chewed bread.

Some may chuse to make their own lines; in which case, if they prefer those twisted with the fingers, they need only observe the rules given by the article for that purpose: but for greater neatness and expedition, I would recommend an engine lately invented, which is now to be had at almost any fishing-tackle shop in *London;* it consists of a large horizontal wheel, and three very small ones, inclosed in a brass box about a quarter of an inch thick, and two inches in diameter; the axis of each of the small wheels is continued through the under side of the box, and is formed into a hook: by means of a strong screw it may be fixed in any post or

or partition, and is set in motion by a small winch in the centre of the box.

To twist links with this engine, take as many hairs as you intend each shall consist of, and, dividing them into three parts, tie each parcel to a bit of fine twine, about six inches long, doubled, and put through the aforesaid hooks; then take a piece of lead, of a conical figure, two inches high, and two in diameter at the base, with a hook at the apex, or point; tie your three parcels of hair into one knot, and to this, by the hook, hang the weight.

Lastly, Take a quart or larger bottle-cork, and cut into the sides, at equal distance, three grooves; and placing it so as to receive each division of hair, begin to twist: you will find the link begin to twist with great evenness at the lead; as it grows tighter, shift the cork a little upwards; and when the whole is sufficiently twisted, take out the cork, and tie the link into a knot; and so proceed till you have twisted links sufficient for your line, observing to lessen the number of hairs in each link in such proportion as that the line may be taper. See the engine, Fig. 32. Fig. 33. is the form of the cork.

When you use the fly, you will find it necessary to continue your line to a greater degree of fineness; in order to which, supposing the line to be eight yards in length, fasten a piece of three or four twisted links tapering, till it becomes of the size of a fine grass, and to the end of this fix your hook-line, which should be either of very fine grass, or silk-worm gut. A week's practice will enable a learner to throw one of these links, and he may lengthen it, by a yard at a time, at the greater end, till he can throw fifteen yards neatly; till when he is to reckon himself but a novice.

For the colour, you must be determined by that of the river you fish in; but I have found that a line of the colour of pepper and salt, when mixed, will suit any water.

Many inconveniences attend the use of twisted hairs for your hook-line; silk-worm gut is both fine and very strong, but then it is apt to fray; though this may, in some measure, be prevented by waxing it well.

Indian, or sea-grass, makes excellent hook-lines; and though some object to it as being apt to grow brittle, and to kink in using, with proper management it is the best material for the purpose yet known, especially if ordered in the following manner:

Take as many of the finest you can get, as you please, put them into a vessel, and pour therein the scummed fat of a pot wherein fresh, but by no means salt meat has been boiled; when they have lain three or four hours, take them out one by one, and stripping the grease off with your finger and thumb, but do not wipe them, stretch each grass as long as it will yield, coil them up in rings, and lay them by, and you will find them become nearly as small, full as round, and much stronger than the best single hairs you can get. To preserve them moist, keep them in a piece of bladder well oiled, and, before you use them, let them soak about half an hour in water; or, in your walk to the river-side, put a length of it into your mouth.

If your grass is coarse, it will fall heavily in the water, and scare away the fish; on which account, gut has the advantage. But, after all, if your grass be fine and round, it is the best thing you can use.

Supposing you would make the plain hackle or palmer, which are terms of the same import, the method of doing it is as follows, *viz.*

Hold your hook in a horizontal position, with the shank downwards, and the bent of it between the fore-finger and thumb of your left hand; and having a fine bristle, and other materials, lying by you, take half a yard of fine red marking silk, well waxed, and, with your right-hand, give it four or five turns round the shank of the hook, inclining the turns to the right hand: when you are near the end of the shank, turn into such a loop as you are hereafter directed to make for fastening off, and draw it tight, leaving the ends of the silk to hang down at each end of the hook. Having singed the end of your bristle, lay the same along on the inside of the shank of the hook, as low as the bent, and whip four or five times round; then singe the other end of the bristle to a fit length, turn it over to the back of the shank, and, pinching it into a proper form, whip down and fasten off, as before directed; which will bring both ends of the silk into the bent. After you have waxed your silk again, take three or four strands of an ostrich feather, and holding them, and the bent of the hook as at first directed, the feathers to your left-hand, and the roots in the bent of your hook, with that end of the silk you just now waxed, whip them three or four times round, and fasten off: then turning the feathers to the right, and twisting them and the silk with your fore-finger and thumb, wind them round the shank of the hook, still supplying the short strands with new ones, as they fail, till you come to the end, and fasten off. When you have so done, clip off the palmer small at the extremities, and full in the middle, and wax both ends of your silk, which are now divided, and lie at either end of the hook.

Lay your work by you, and taking a strong bold hackle, with fibres about half an inch long, straiten the stem very carefully, and holding the small end between the fore-finger and thumb of your left-hand, with those of the right, stroke the fibres the contrary way to that which they naturally lie; and taking the hook, and holding it as before, lay the point of the hackle into the bent of the hook with the hollow, which is the palest side, upwards, and whip it very fast to its place; in doing whereof, be careful not to tie in many of the fibres; or if you should chance to do so, pick them out with the point of a very large needle.

When the hackle is thus made fast, the utmost care and nicety is necessary in winding it on; for if you fail in this, your fly is spoiled, and you must begin all again; to prevent which, keeping the hollow or pale side to your left hand, and as much as possible, the side of the stem down on the dubbing, wind the hackle twice round, and holding fast what you have so wound, pick out the loose fibres, which you may have taken in, and make another turn: then lay hold of the hackle with the third and fourth fingers of your left hand, with which

which you may extend it while you disengage the loose fibres as before.

In this manner proceed till you come to within an eighth of an inch of the end of the shank, where you will find an end of silk hanging, and by which time you will find the fibres at the great end of the hackle somewhat discomposed; clip these off close to the stem, and, with the end of your middle finger, press the stem close to the hook, while, with the fore-finger of your right-hand, you turn the silk into a loop; which when you have twice put over the end of the shank of the hook, loop and all, your work is safe.

Then wax that end of the silk which you now used, and turn it over as before, till you have taken up nearly all that remained of the hook, observing to lay the turns neatly side by side; and lastly, clip off the ends of the silk: thus will you have made a bait that will catch trout of the largest size in any water in *England*.

And lest the method of fastening off, which occurs so often in this kind of work, should not appear sufficiently intelligible, the reader will see it represented in Fig. 34.

It is true, the method above described will require some variations in the case of gold and silver-twist palmers; in the making whereof, the management of the twist is to be considered as another operation; but this variation will suggest itself to every reader, as will also the method of making those flies, that have hackle under the wings.

As the foregoing directions mention only the materials for making the several flies, the reader may yet be at a loss both with respect to their form and size; therefore we have in the plate given the five, which may be considered as radical flies; and they are, the palmer, Fig. 35, the green-drake, 36, the dun-cut, 37, the hawthorn-fly, 38, and the ant fly, 39. The two first are each a species by itself; the third is a horned fly; the fourth has hackle under his wings; and the fifth, as most flies of the ant-kind have, has a large bottle-tail; and to one or other of these figures, it is imagined all flies are reducible.

In adjusting their different sizes, it must be owned there is great difficulty; all that can be said is, that the Figures 11 and 12, exhibit the usual size of the palmer, the green and gray-drake. Fig. 13, may serve as a specimen for most flies that are not directed to be made large; and when directions are given to make the fly small, the reader is to consider Fig. 14, as an example.

Gnats cannot be made too small.

Some, in making a fly, work it upon, and fasten it immediately to, the hook-link, whether it be of gut, grass, or hair: others whip on the shank of the hook a stiff hog's bristle bent into a loop; concerning these methods there are different opinions.

The latter, except for small flies, seems the more eligible way; and it has this advantage, that it enables you to keep your flies in excellent order; to do which, string each species separately, through the loops, upon a fine piece of cat-gut, of about seven inches long; and string also thereon, through a large pin-hole, a very small ticket of parchment, with the name of the fly written on it; tie the cat-gut into a ring, and lay them in round flat boxes, with paper between each ring; and when you use them, having a neat loop at the lower end of your hook-line, you may put them on and take them off at pleasure.

In the other way, you are troubled with a great length of hook-link, which, if you put even but few flies together, is sure to entangle, and occasion great trouble and loss of time. And as to an objection which some make to a loop, that the fish see it, and therefore will not take the fly, you may be assured there is nothing in it.

See GROUND ANGLING.
GROUND BAIT.
GROUND PLUMBING.

When you have hooked a fish, never suffer him to run out with the line: but keep your rod bent, and as near perpendicular as you can; by this method the top plies to every pull he makes, and you prevent the straining of your line: for the same reason,

Never raise a large fish out of the water by taking the hair to which your hook is fastened, or indeed any part of the line into your hand; but either put a landing-net under him, or for want of that, your hat; you may indeed in fly-fishing, lay hold of your line to draw a fish to you; but this must be done with caution.

Your silk for whipping hooks and other fine work, must be very small; use it double, and wax it, and indeed any other kind of binding, with shoemaker's wax, which of all wax is the toughest, and holds best: if your wax is too stiff, temper it with tallow.

If for strong fishing, you use grass, which, when you can get it fine, is to be preferred to gut, remember always to soak it about an hour in water before you use it: this will make it tough, and prevent its kinking.

Whenever you begin fishing, wet the end of the joints of your rod; which, as it makes them swell, will prevent their loosening. And,

If you happen with rain or otherwise to wet your rod, so that you cannot pull the joints asunder, turn the ferrule a few times round in the flame of a candle, and they will easily separate.

Before you fix the loop of bristle to your hook, in order to make a fly, to prevent its drawing, be sure to singe the ends of it in the flame of a candle; do the same by the hair, to which at any time you whip a hook.

If at any time you happen to be overheated with walking, or other exercise, avoid small liquors, especially water, as you would poison; and rather take a glass of rum or brandy, the instantaneous effects whereof, in cooling the body, and quenching drought, are amazing.

Never be tempted in the pursuit of your recreation, to wade; at least not as I have seen some do, to the waist. This indiscreet practice has been known to bring on fevers that have terminated in abscesses, and endangered the loss of a limb.

Be always neat in your tackle, and provided with plummets, a knife, different kinds of hooks, floats, and a few shots, or any thing else you ought to be furnished with, before you set out for your recreation.

In a pond it is best to angle near the ford where the cattle

cattle go to drink, and in rivers in ſuch places where ſuch ſort of fiſh you intend to angle for, do uſually frequent; as for breams, in the deepeſt and quieteſt part of the river; for eels, under over-hanging banks; for chub, in deep ſhaded holes; for perch, in ſcowers; for roach, in the ſame place as perch; for trouts, in quick ſtreams, and with a fly upon the ſtream on the top of the water.

And if you fiſh in ſuch places where you can diſcern the gravelly bottom, then be ſure that you conceal yourſelf as much as is poſſible.

In ſuch waters as are peſtered with weeds, roots of trees, and ſuch like, fiſh lie cloſe and warm, and they reſort thither in great ſhoals, and there they will bite freely; but take great care how you caſt in the hook, and how you ſtrike a bite, for the leaſt raſhneſs loſes hook and line.

And if the hook happens to be entangled, you ſhould be provided with a ring of lead, about ſix inches round, faſtened to a ſmall pack-thread, and thruſt the ring over the rod, letting it go into the water, holding faſt by the other end of the pack-thread, and work it gently up and down, and it will ſoon diſengage the hook.

It is good angling in whirlpools, under bridges, at the falls of mills, and in any place where the water is deep and clear, and not diſturbed with wind or weather.

The beſt times are from *April* to *October*, for in cold, ſtormy and windy weather, the fiſh will not bite; and the beſt times in the day are from three till nine in the morning, and from three in the afternoon till ſunſet.

If the wind be eaſterly, it will be in vain to go to angle; but you may angle well enough if it blow from any other point, provided it do not blow hard; but it is beſt in a ſoutherly wind, and a cloſe, lowering, warm day, with a gentle wind, and after a ſudden ſhower to diſturb the water, at which time they will beſt riſe at the fly, and bite eagerly; and the cooler the weather is in the hotteſt month, the better it is.

In winter all weathers and all times are much alike, only the warmeſt are the beſt.

It is very good angling a little before the fiſh ſpawn, for then their bellies being full, they frequent ſandy fords to rub and looſen their bellies, at which time they will bite freely.

It is alſo very good angling in a dull, cloudy day, after a clear, moon-ſhiny night, for in ſuch nights they are fearful to ſtir to get food, lying cloſe, ſo that being hungry the next day, they will bite boldly and eagerly.

At the opening of ſluices and mill-dams, if you go with the courſe of the water, you can hardly miſs of fiſh that ſwim up the ſtream to ſeek for what food the water brings down with it.

It is good angling at the ebb, in waters that ebb and flow; but yet the flood is to be preferred, if the tide is not ſtrong. For fly-fiſhing, *ſee* APRIL, AUGUST, *&c.* For proper directions, *ſee Article* FISHING.

DIRECTIONS *and* CAUTIONS *to be obſerved in* ANGLING.

To know at any time what baits fiſh are willing to take, open the belly of the firſt you catch, and take his ſtomach very tenderly; open it with a ſharp penknife, and you will diſcover what he then feeds on. The procuring proper baits is not the leaſt part of the angler's ſkill.

The ants-fly is to be met with from *June* to *September*, and may be kept in a bottle with ſome earth, and the roots of graſs from the ant-hills where they are bred. They are excellent bait for roach, dace, and chub, if you angle with them under the water about a hand's breadth from the bottom.

It is uſual for every angler to have his peculiar haunt. Now for the attracting and drawing together the fiſh into ſuch a place, it will be proper once in four or five days to caſt in ſome corn boiled ſoft, or garbage, or worms chopt to pieces, or grains ſteeped in blood and dried: but for carp and tench, ground malt is the moſt proper to keep them together.

If you fiſh in a ſtream, it will be beſt to caſt in the grain above the hook, down the ſtream.

The beſt way of angling with the fly is down the river, not up, and in order to make them bite freely, be ſure to uſe ſuch baits as you know they are naturally inclined to, and in ſuch manner as they are accuſtomed to receive them.

If your baits be of paſte, for the keeping them on your hook, add a little flax, or wool.

The eyes of fiſh are good baits for all fiſh.

Wear not light coloured or gay clothes when you are fiſhing, but rather black or dark coloured; and, if poſſible, ſhelter youſelf under ſome buſh or tree, or ſtand ſo far from the bank-ſide that you can but diſcern the float; for fiſh are timorous, and fearful of everything they ſee.

The next thing to be obſerved is the floating for ſcale fiſh, in either pond or river. Firſt, take notice, that the ſeeds bring the fiſh together; and there is no better in all angling than blood and grains, though paſte is good, but inferior to theſe.

Remember to plumb your ground angling with fine tackle, as ſingle hairs for half the line next the hook, round and ſmall plumbed, according to the float.

Other ſpecial baits are theſe; brandling, gentles, paſte, dock-worms, or caddis, (otherwiſe called cock-bait) they lie in gravelly huſk, under the ſtones in the river.

The natural fly is a ſure way of angling to augment the angler's diverſion: with the palmer, may-fly, and oak-fly, the angler muſt uſe ſuch a rod as to angle with the ground-bait; the line muſt not be ſo long as the rod.

Let the angler withdraw his fly as he ſhall find it moſt convenient and advantageous in his angling: when he comes to deep water, whoſe motion is ſlow, let him make his line about two yards long, and drop his fly behind a buſh, and he will find excellent ſport. *For* PASTE *and* WORMS *ſee their own Articles.*

ANGLING *by Hand,*

Is of three sorts.

The first is performed with a line about half the length of the rod, a good weighty plummet, and three hairs next the hook, which is called a running line, and with one large brandling, or a dew-worm of a moderate size, or two small ones of the first, or any other sort proper for a trout, or indeed almost any worm whatsoever; for if a trout be in humour to bite, he will bite at any worm, and if you fish with two, bait your hook thus:

First, run the point of your hook in at the very head of your first worm, and down through his body, till it be past the knot, and then let it out, and strip the worm above the arming, (that you may not bruise it with your fingers) till you have put on the other, by running the point of your hook in below the knot, and upwards through the body, towards his head, till it be just covered with the head, which being done, you are then to slip the first worm down over the arming again, till the knot of both worms meet together.

The second way of angling in hand, and with a running line, is with a line something longer than the former, and with tackle made after the following manner:

At the utmost extremity of your line, where the hook is always placed in all other ways of angling, you are to have a large pistol or carbine bullet, into which the end of your line is to be fastened, with a peg or pin even and close with the bullet, and about half a foot above that, a branch of line of two or three handfuls long, or more, for a swift stream, with a hook at the end thereof, baited with some of the fore-mentioned worms; and another half a foot above that armed and baited after the same manner, but with another sort of worm, without any lead at all above; by which means you will always certainly find the true bottom in all depths, which, with the plummets upon your line above you can never do, but that your bait must always drag, while you are sounding, (which in this way of angling must be continually) by which means, you are like to have more trouble, and perhaps less success. And both these ways of angling at the bottom, are most proper for a dark and muddy water, by reason that in such a condition of the stream, a man may stand as near as he will, and neither his own shadow, nor the nearness of the tackle, will hinder his sport.

The third way of angling by hand with a ground bait, and much the best of all others, is with a line full as long, or a yard longer than your rod, with no more than one hair next the hook, and for two or three lengths above it, and no more than one small pellet of shot for a plummet, your hook little, your worm of the smallest brandlings, very well scoured, and only one upon your hook at a time, which is thus to be baited; the point of your hook is to be put in at the tag of his tail, and run up his body quite over all the arming; and still stript on an inch, at least, upon the hair, the head and remaining part hanging downwards, and with this line and hook thus baited, you are ever more to angle in the streams, always in a clear rather than a troubled water, and always up the river, still casting out your worm before you, with a clean, light, one-handed rod, like an artificial fly, where it will be taken sometimes at the top, or within a very little of the superficies of the water, and almost always before that light plumb can sink it to the bottom, both by reason of the stream, and also that you must always keep your worm in motion, by drawing still back towards you, as if you were angling with a fly.

And indeed whoever shall try this way, will find it the best of all others, to angle with a worm in a bright water especially; but then his rod must be very light and pliant, and very true and finely made, and with a skilful hand it will succeed beyond expectation: and in a clear stream, is undoubtedly the best angling for a trout or grayling with a worm, by many degrees, that any man can make choice of, and the most easy and pleasant to the angler.

And if the angler be of a constitution that will suffer him to wade, and will slip into the tail of a shallow stream to the calf of the leg, or knee, and so keep off the bank, he shall take almost what fish he pleases.

The second way of angling at the bottom, is with a cork, or float, and that is also of two sorts.

With a worm; or with grub, or caddis.

With a worm, you are to have your line within a foot or a foot and a half as long as your rod, in a dark water, with two, or if you will, with three; but in a clear water, never with above one hair next the hook, and two, or three, or four, or five lengths above it, and a worm of what size you please; your plumbs fitted to your cork, and your cork to the condition of the river, (that is, to the swiftness or slowness of the stream) and both when the water is very clear, as fine as you can, and then you are never to bait with more than one of the lesser sort of brandlings: or if they be very little ones indeed, you may then bait with two, after the manner before directed.

When you angle for a trout, you are to do it as deep, that is, as near to the bottom, as you can, provided your bait do not drag, or if it do, a trout will sometimes take it in that posture: if for a grayling, you are then to fish further from the bottom, he being a fish that usually swims nearer to the middle of the water, and lies always loose; or however is more apt to raise than a trout, and more inclined to raise than to descend even to a groundling. With a grub or caddis you are to angle with the same length of line; or if it be quite as long as your rod, it is not the worse, with never above one hair for two or three lengths next the hook, and with the smallest cork, or float, and the least weight of plumb you can, that will but sink, and that the swiftness of your stream will allow; which also you may help and avoid the violence of the current, by angling in the returns of a stream, or the eddies betwixt two streams, which also are the most likely places wherein to kill a fish in a stream, either at the top or bottom.

Of grubs for a grayling, the ash grub which is plump, milk-white, bent round from head to tail, and exceedingly tender, with a red head; or the dock-worm; or the grub of a pale yellow, longer, lanker, and tougher than the other, with rows of feet all down

his belly, and a red head, alſo are the beſt, *i. e.* for a grayling; becauſe though a trout will take both theſe, (the aſh grub eſpecially) yet he does not do it ſo freely as the other; and a certain author ſays, he has uſually taken two graylings for one trout with that bait; but if he happened to take a trout with it, it was commonly a very good one.

Theſe baits are uſually kept in bran, in which an aſh grub commonly grows tougher, and will better endure baiting; though he is ſtill ſo tender, that it will be neceſſary to warp in a piece of ſtiff hair with your arming, leaving it ſtanding out about a ſtraw's breadth at the head of your hook, ſo as to keep the grub either from ſlipping totally off when baited, or at leaſt down to the point of the hook, by which means your arming will be left naked and bare, which is neither ſo ſightly, nor ſo likely to be taken, though to help that (which will often however fall out) you may arm the hook deſigned for this bait with the whiteſt horſe hair that you can get, which itſelf will reſemble and ſhine like that bait, and conſequently will do more good, or leſs harm, than arming of any other colour.

Theſe grubs are to be baited thus; the hook is to be put in, under the head, or the chaps of the bait, and guided down the middle of the belly, without ſuffering it to peep out by the way, for then (the aſh grub eſpecially) will iſſue out water and milk, till nothing but the ſkin ſhall remain, and the bend of the hook will appear black through it, till the point of your hook come ſo low, that the heart of your bait may reſt, and ſtick upon the hair that ſtands out to hold it, by which means it can neither ſlip of itſelf, neither will the force of the ſtream, nor quick pulling out, upon any miſtake, ſtrip off.

Now the caddis or cob bait (which is a ſure killing bait, and for the moſt part ſurer than any of the other) may be put upon the hook two or three together, and is ſometimes (to very great effect) joined to a worm, and ſometimes to an artificial fly, to cover the point of the hook; but is always to be angled with at bottom (when by itſelf eſpecially) with the fineſt tackle; and is for all times in the year, the moſt holding bait of all other whatſoever, both for trout and grayling. *See* SNAP-ANGLING, FLOAT-ANGLING, TRIMMER-ANGLING, and FLY-ANGLING, ROCK-FISHING, BLADDER-ANGLING, MAGGOT-FISHING.

To allure FISH *to bite.*

Take gum-ivy, and put a good quantity of it into a box made of oak; like thoſe the apothecaries uſe of white wood for their pills. Rub the inſide of the box with this gum, and when you angle, put three or four worms therein, letting them remain but a ſhort time; for if long, it kills them: then take them out, and uſe them, putting more in their ſtead, out of the worm-bag and moſs; and continue to do this all day.

Gum-ivy is a tear which drops from the body of the larger ivy, being wounded. It is of a yellowiſh red colour, of a ſtrong ſcent, and ſharp taſte. That which is ſold in the ſhops is often counterfeit and adulterate: therefore to get true gum-ivy, at *Michaelmas*, or ſpring, drive ſeveral great nails into large ivy-ſtalks, and having wriggled them till they become very looſe, let them remain, and a gum will iſſue out of the hole. Or you may ſlit ſeveral great ivy-ſtalks, and viſit them once a month, or oftener, to ſee what gum flows from the wounded part. This gum is excellent for the angler's uſe; perhaps nothing more ſo under the form of an unguent. Alſo,

Take aſſa-fœtida, half an ounce; camphire, two drachms; bruiſe them well together with ſome drops of oil of olive, and put it into a pewter box, to uſe, as the receipt from Monſieur CHARRAS. Some, inſtead of oil of olive, uſe the chemical oil of lavender and camomile; and ſome add the quantity of a nutmeg of *Venice* turpentine to it. But for a trout in a muddy water, and for gudgeons in a clear water, the beſt unguents are thus compounded, *viz.*

Take aſſa-fœtida, three drachms; camphire, one drachm; *Venice* turpentine, one drachm, beat all together with ſome drops of the chemical oils of lavender and camomile, of each an equal quantity; and uſe it as in the firſt direction.

Take *Venice* turpentine, the beſt hive-honey, and oil of pollibody of the oak, drawn by retort: mix all together, and uſe it as the firſt ointment is directed.

Take oil of ivy-berries, made by expreſſion or infuſion, and put ſome in a box, and uſe it to ſcent a few worms juſt before you uſe them.

Diſſolve gum-ivy in the oil of ſpike, and anoint the bait with it for a pike.

Put camphire in the moſs wherein are your worms, the day you angle.

Diſſolve two ounces of gum-ivy in a gill of ſpring water; mix them together with the like quantity of the oil of ſweet almonds; then take what quantity of worms you intend to uſe that day, being firſt well ſcoured in moſs, and put them in linen thrums (the ends of the weaver's warp when he has finiſhed his piece) well waſhed in ſpring-water, and ſqueezed: then wet the thrums in this compoſition, and put them and the worms into a linen bag, out of which uſe them.

Take aſſa-fœtida, three drachms; ſpikenard of *Spain*, one drachm: put them in a pint of ſpring-water, and let them ſtand in a ſhady place fourteen days in the ground: then take the ſolution out, and having drained it through a linen cloth, put to the liquor one drachm of ſpermaceti, and keep it cloſe in a ſtrong glaſs bottle. When you go to angle, take what quantity of worms you intend to uſe that day, (they being firſt well ſcoured in moſs) put them upon a china ſaucer, and pour a little of this water upon them; then put them in the moſs again, and uſe them.

Take juice of camomile, half a ſpoonful; chemical oil of ſpike, one drachm; oil of comfrey, by infuſion, one drachm and a half; gooſe-greaſe, two drachms: theſe being well diſſolved over the fire, let them ſtand till they are cold; then put them into a ſtrong glaſs bottle, which keep unſtopped three or four days; ſtop it afterwards very well, and when you angle, anoint the bait with this compoſition.

Some add to it three drachms of the ſpirit of vitriol, and call it the univerſal and infallible bait.

Take

Take a handful of houſe-leek, and half a handful of inner green bark of the ivy-ſtalk: pound theſe well together, and preſs out the juice, and wet your moſs therewith. When you angle, put ſix or eight worms therein out of the other bag.

Some uſe the juice of nettles and houſe-leeks, as the laſt receipt, and ſome only the juice of houſe-leek.

Some anoint their baits with the marrow got out of a heron's thigh-bone; and ſome uſe the fat and greaſe of a heron.

Oil of anniſeed, ſpikenard of *Spain*, ſpermaceti, powdered cummin-ſeed, galbanum, are all highly commended; and may be tried ſingly or compounded; either mixed up in a paſte, or uſed as unguents.

Make up a paſte with mulberry-juice, hedge-hog's fat, oil of water-lilies, and a few drops of oil of penny-royal. Some highly commend this.

Oil of amber, roſemary, and myrrh, alike of each, mixed with the worms, or in paſte, is ſaid to make the paſte ſo powerful, that no fiſh will reſiſt it.

Sea-gull's fat, mixed with eringo-juice, is an attractive unguent.

Unpickled ſamphire bruiſed, made up in balls for ground-bait with walnut-oil, is excellent for carp, bream, or tench. Alſo bean-flour, with a little honey, wetted with rectified ſpirits of wine and a little oil of turpentine, made up in ſmall pellets, and thrown in over night, will make the fiſh very eager, and keep them at the place, where you will be ſure to find them next morning.

Take the oils of camomile, lavender, anniſeed, each a quarter of an ounce, heron's greaſe, and the beſt of aſſa-fœtida, each two drachms, two ſcruples of cummin-ſeed, finely beaten to powder, *Venice* turpentine, camphire, and galbanum, of each a drachm; add two grains of civet, and make them into an unguent; this muſt be kept cloſe in a glazed earthen pot, or it loſes much of its virtue; anoint your line with it as before, and your expectation will be anſwered. *See* PASTE.

ANGLING *in the Middle for Trout or Grayling,*

Is of two ſorts; 1. with a pink, or minnow, for a trout.

2. With a worm, grub, or caddis, for a grayling.

As for the firſt it is with a minnow, half a foot or a foot within the ſurface of the water; ſome indeed uſe minnows kept in ſalt; but others diſapprove of them, unleſs where living ones are not poſſible to be had; nor are artificial ones to be uſed, where the natural ones are to be had: but a bull-head with his gill-fins cut off is by ſome recommended as a better bait for a trout, (at ſome times of the year eſpecially) than a minnow, and a loach much better than either.

The ſecond way of angling in the middle is with the worm, grub, caddis, or any other ground bait for a grayling; he taking it much better there than at the bottom, as has been ſaid before; and this is always in a clear water, and with the fineſt tackle.

To which may be added alſo, and with very good reaſon, a third way of angling by hand with a ground bait, as a third way of fiſhing in the middle, which is common both to trout and grayling, and the beſt way of angling with a worm of all other.

The Time for ANGLING, *ſeaſonable and unſeaſonable.*

Calm and clear weather is very good to angle in; but cool cloudy weather in ſummer is beſt; provided it be not ſo boiſterouſly windy as that you cannot guide your tackle.

The cooler the weather is in the hotteſt months, the better it is; and if a ſudden violent ſhower hath diſturbed and muddied the river, then is the time for angling in the ſtream at the ground with a red worm.

In like manner it is a very good time for angling before the fiſh ſpawn; for then their bellies being full, they come into ſandy fords, and there rub their bellies to looſen them, at which time they will bite very freely.

If you would fiſh for carp and tench, you muſt begin early in the morning, fiſhing from ſun-riſing till eight of the clock, and from four in the afternoon till night, and in hot months till it is very late.

In the heat of the ſummer, carps will ſhew themſelves on the very top of the water, at which time, if you fiſh with a lob-worm, as you do with a natural fly, you have excellent ſport, eſpecially if it be among reeds.

In *March*, *April*, *September*, and all the winter (in which ſeaſon fiſh ſwim very deep near the ground) it is beſt fiſhing in a ſerene warm day, for then they will bite faſter: but all the ſummer time, mornings, evenings, and cool, cloudy weather, are the beſt times for angling.

Here take notice, that you will find that fiſh riſe beſt at the fly after a ſhower of rain, that has only beaten the gnats and flies into the river, without mudding it.

The proper months and times of the day for the fly, are *March*, *April*, *May*, and the beginning of *June*; in which months, fiſh in the morning about nine of the clock; and in the afternoon between three and four. A warm evening is alſo very ſeaſonable, if the gnats play much.

It is alſo a very good time for angling after a clear moon-ſhiny night, if the ſucceeding day prove cloudy; for if the fiſh have abſtained from food all night, (for in bright nights they will not ſtir for fear) the next day they are hungry and eager, and the gloomineſs of the day will make them bite boldly.

It is a good time for angling, when you perceive the trouts to leap pleaſantly at the flies above water; or the pikes to purſue other fiſh.

In a word, an experienced angler obſerves the times, ſeaſons, and places; otherwiſe, though his baits are ever ſo good, they will have but little effect.

If you go along with the courſe of the water at the opening of ſluices or mills, you wil find that trout and other fiſh will then come out to ſeek for what food the water brings down with it.

And firſt in the extremity of heat, when the earth is parched

parched with a drought, there is little sport to be had, especially in either muddy or clear shallow rivers.

Secondly, in the winter, or spring time, when any hoary frost happens, the fish will not bite kindly all that day, except it be in the evening, and that proves serene and pleasant. But it is not proper to fish at any time, when the wind blows so high that you cannot manage your tackle to advantage.

Thirdly, it is not good fishing in the time of sheep-shearing, for then the fish glut themselves with what is washed off the sheep, and will scarce bite till that season be over.

Also the sharp cast and northerly winds do very much obstruct the recreation of anglers: nor is it good to fish immediately after spawning time: for at that time their appetite is much palled.

It is very strange to be observed, what a natural instinct there is in fish, in foreknowing the approach of a shower of rain, for upon the approach of a cloud that threatens a shower, they will not bite; and the observation of this has saved several anglers from being wet to the skin.

Lastly, if the preceding night prove dark and cloudy, the succeeding day will be no good day to angle in, unless it be for small fish; for at such time the larger prey abroad for the lesser; who, by instinct knowing the danger, hide themselves till the morning; and having fasted all night, become then very hungry, while the larger, having gorged themselves, lie absconded all the day. For directions for ARTIFICIAL FLY-FISHING, see the Article FISH.

ANGLING-LINE; to make this line, the hair should be round and twisted even, for that strengthens it, and should also be as near as may be of equal bigness; then lay them in water for a quarter of an hour, whereby you will find, which of them will shrink, then twist them over again, and in twisting, some intermingle silk, which is not good, but a line of all silk is not amiss; also a line made of the strongest lute-string is very good, but that will soon rot with the water: now the best colour for lines, is sorrel, white and grey; the two last colours for clear waters, and the first for muddy rivers, neither is the pale watery green despiseable, which colour may be made thus; put a pint of strong allum, half a pound of soot, a small quantity of juice of walnut-leaves, with the like of alum, into a pipkin, boil them about half an hour together, then take it off the fire; when it is cool, steep your hair in it; or else thus, boil in a bottle of alum water, somewhat more than a handful of marigold flowers, till a yellow scum arise; then take half a pound of green copperas, with as much verdigrise, and beat them together to a fine powder; and with the hair, put them into the alum water, and let it lie ten hours, or more: take the hair out, and let it dry. *See* LINES FOR FISHING.

ANGLING-ROD. The time to provide stocks is in the winter solstice, when the trees have shed their leaves, and the sap is in the roots: for after *January* it ascends again into the trunk and branches, at which time it is improper to gather stocks, or tops; as for the stocks they should be lower grown, and the tops the best rush ground shoots that can be got, not knotty, but proportionable and slender, for otherwise they will neither cast or strike well, and the line by reason of their unpliableness, must be much endangered; now when both stock and top are gathered in one season and as straight as may be, bathe them (except the tops) over a gentle fire, and use them not till fully seasoned, which is a year and four months; but they are better if kept two years; and for the preserving, both from rotting, and worm eating, rub them over thrice a year with sallad, or linseed oil; sweet butter will serve if never salted; and with any of these you must chafe your rods well; if bored, pour in either of the oils, and let them soak therein twenty-four hours, then pour it out again; this will preserve the tops and stocks from injuring. *See* FISHING-LINE, HOOK, FLOAT, *and* ROD, &c.

Night ANGLING, *and Ground* ANGLING.

Great fish (but chiefly trouts) are shy, and fearful of ensnarements; and observe the most secure season to seek their food, and that is at night.

For night angling you must provide large garden-worms; or instead of them, black snails: and having baited your hook with them, cast them off at a distance, and then draw your line to you again upon the surface of the water, not suffering the bait to sink; with which use not a leaden plummet, but only a float; but in ground-angling, you must use a plummet, without a float; and this method of ground-angling is very good in cold weather, for then the fish lie low.

You may easily hear the fish rise, and therefore give him time to swallow the bait; and then gently give him a twitch to secure him.

If you find that the fish does not freely take the bait at the top of the water, put some lead to it, and sink your bait, and proceed as in day-angling.

It has been observed, that the best trouts bite in the night, and do most commonly rise in the still deeps, seldom in the quick streams. *See* BLADDER-ANGLING, DRABBLING, *&c.*

ANTICOR, (or *advant coeur*) is an inflammation in a horse between his fore-legs, the same with a quinsy in mankind. Most writers are agreed, that this disorder proceeds from hard riding, exposing a horse to the cold, and giving him cold water to drink when he is hot, full feeding, and whatever else may cause a sudden stagnation of the blood. Some will have it to proceed from fatness and rank feeding.

This complaint, by SOLLEYSEL is supposed to be an inflammation of the pericardium, or bag which contains the heart, usually terminating in a critical abscess in the chest; according to that experienced author, if the swelling ascends to the throat, it is present death. This disease seems to be unknown in this country, and is, perhaps, peculiar to warmer climates. It is of the pleuretic class.

When you touch a swelling of this kind, the impression of the fingers remains for some time, as if you had made them in a bit of puff paste, filling up again by degrees, as the paste would rise. This swelling contains bloody water, that insinuates between the flesh and

and the ſkin, and proves that all the blood in the veins is corrupted.

The cure ſhould firſt be attempted by large and repeated bleedings, to abate the inflammation; and Mr. GIBSON approves of ſtriking one or other of the veins of the hind parts to make a revulſion. Next to bleeding, if the horſe be coſtive or bound in his body, clyſters are of uſe; and Dr. BRACKEN directs the following as a general one. Take leaves of mallows and pellitory of the wall, of each three handfuls; camomile flowers, one handful; anniſeed and ſweet fennel-ſeed, each half an ounce; linſeed, one ounce: boil theſe in three quarts of water to two; then ſtrain and preſs out the liquor ſtrongly, and add of caryocoſtinum electuary one ounce, common ſalt two ounces, and common plaiſter oil three ounces mixt. Theſe ſhould be injected through a very long pipe for the purpoſe, and as warm as a man can bear his cheek to the ſide of the bladder it is tied up in, and it ſhould be repeated every two or three days, as occaſion offers.

ANTLER, a ſtart or branch of a deer's attire.

Bes-ANTLER, the ſtart or branch next above the brow-antler.

Brow-ANTLER, the ſtart or branch next the head.

APOPLEXY, or FALLING-EVIL, a diſeaſe that ſeizes the heads of hawks, commonly by reaſon of too much greaſe and ſtore of blood; or becauſe they have been too long in the heat of the ſun, or have made too long a flight in the heat of the day: and as it is very cuſtomary with them to be full of greaſe in the mew: it is very good when they are empty to give them a little lard, or ſweet butter, ſoaked in roſe water, ſweetened with a little ſugar-candy pounded; but the beſt thing of all is, to draw their meat through black cherry water.

APOPLEXY, (in *Horſes*). *See* PALSY.

APOSTHUME, (in *Hawks*) a diſeaſe in the head, attended with ſwellings therein; occaſioned by divers ill humours, and the heat of the head: it may be diſcovered by the ſwelling of the eyes, by the moiſture that comes from their ears, and by their ſlothfulneſs.

For cure give them a pill of butter, as big as a nut, well waſhed in roſe-water, and mixed with honey of roſes and fine ſugar, for three or four mornings, when they have meat: they muſt be held on the fiſt till they have made one or two mewts, then take four drams of the ſeed of rue, two drams of hepatic aloes, and one ſcruple of ſaffron; reduce all to fine powder, and mix them with honey of roſes, and make a pill, and give them: it will purge and ſcour their heads; then about two hours after give them ſome good hot meat.

When the nares of a hawk are ſtuffed up with filth; after a convenient ſcouring, take pepper and muſtard-ſeed, beaten to a fine powder, put into a linen cloth, and ſteep it for ſome time in ſtrong white wine vinegar; of which put ſome drops upon her nares, that they may pierce in, and they will ſoon ſcour her head.

APPETITE, (LOSS OF). This ariſes either from errors in diet and management, want of graſs, or from conſtitutional or acquired debility. If the digeſtive powers of the horſe have been overburdened with accumulated feeds of corn, and at the ſame time evacuations and exerciſe neglected, nothing may be required farther than the oppoſite management. Maſhes for ſome days. Courſe of ſalts and cremor tartar; after an aloetic purge.

If a weak caſe, a run at graſs, and the mildeſt purging courſe on return. GIBSON adviſes to add to the purge of aloes and rhubarb, two drachms of elixir proprietatis prepared with oil of ſulphur by the ball. After the operation of each purge, to give the following drink, warmed in cold weather. *See* HORNED CATTLE.

Take a large handful of guiacum ſhavings; pomegranite bark, and baluſtines bruiſed, each one ounce; galangels and liquorice-root ſliced, each half an ounce; boil in two quarts forge water to three pints, and whilſt warm, infuſe in the decoction two drachms ſaffron, and half an ounce diaſcordium. It makes two drinks. OR. Chalybeate beer with bitters, taken once a day. Looſe ſtable. Walking exerciſe, or daily turning out in yard or paddock.

Some are off their ſtomach at moulting, or ſhedding their coats, when they require a ſomewhat ſharper regimen and comfortable maſhes, with cordial ball daily. Mares, in their horſing-time, will ſometimes loſe their appetite, when a gentle ſaline courſe is good, and afterwards cordial balls, once a day for a week. CRIBBITING may deſtroy the appetite, or induce *bulimia*. The only cure of that vice is to leave nothing in the way to lay hold on, as in a looſe ſtall with no rack or manger.

SOLLEYSEL, who was a moſt diligent and accurate obſerver, pretends horſes ſometimes loſe their ſtomachs, from "little worms lodged within the lips, above and "below, which cauſe ſuch an itching, that he is con-"tinually rubbing his lips againſt the manger. Theſe "worms appear like little puſhes when you turn back "the lips, and are diſlodged by cutting the uppermoſt "ſkin, where they appear, with a ſharp knife, and "rubbing with ſalt and vinegar." I have frequently noticed horſes rubbing their lips againſt the manger in the manner mentioned by this writer, but can pretend to no acquaintance with the lip-worm.

APPETITE, (CRAVING, or BULIMIA.) Horſes addicted to this, are commonly ſtyled FOUL FEEDERS: It may ariſe from an acid or acrimonious juice in the ſtomach, the conſequence of indigeſtion, and this may have for its cauſe either over repletion and want of exerciſe, or debility of the organs of digeſtion.

The proper cure is to cleanſe the firſt paſſages with abſorbents and purgatives, and ſhould the diſeaſe ariſe from debility, to uſe corroborants, as directed in the laſt caſe. Of abſorbents, none equal magneſia and ſalt of tartar, as they evacuate as well as abſorb, whereas chalk, and the teſtaceous powders, are apt to leave a load upon the ſtomach: but in weak caſes, joined with looſeneſs, theſe latter are preferable. To the purge, join diapente, one ounce and half.

Horſes in this ſtate will eat clay, wall, or dirt, wet foul litter, or even the dung of other horſes. Keep the ſtall clean, with freſh litter. In ſome horſes this conſtant deſire of eating is merely a habit, and of no great conſequence, ſince you can regulate their diet at will, and they can ſeldom devour clean ſtraw enough to injure them.

APPROACH.

APPROACHING, IN FOWLING, is a particular device to approach or come near those birds that are shy, which frequent marshy and watery places, without being seen by them.

This is performed by a sort of machine, of three hoops tied together, all at proper distance, according to the height of the man that is to use it, and having boughs tied all round it, and with cords to bear on his shoulders; so that a man getting in is concealed by the boughs, and can approach near them unsuspected till he comes within reach of shot.

As for herons, wild geese, duck, teal, &c. they are apt to keep the waters in the day-time, and on the meadows near the brinks of the rivers, and as far as they can from hedges and trees, for fear of being surprized; and when the water is 2 or 300 paces from trees, they will leave the middle of the stream, and muddle along the sides of the river where the water is shallow; but when they perceive any body near, even a beast to pass along, they will quit the sides, and withdraw to the middle again.

Geese, ducks, and teals quit the water in the evening, and pass the night in the fields, but in the morning return to the water: however you may easily approach them by means of a machine, as represented in the following figure, carried by a man, where he is concealed; and they may be shot whenever he is within a due distance from them. *See* Plate II.

To make this machine, take three small hoops, which you are to tie with a cord in this manner; take a cord D, E, M, N, tie two ends together, and doing the same by the other two, divide the whole into four parts, and yet nothing must be cut; and fasten to every quarter D, E, M, N, another cord, five or six feet long, pass the head of it through the middle, so that two of the cords remain before and the other behind; or else fix a piece of wood in the ground, the height of the man that is to carry the machine, put this cord upon it, and take a hoop F, C, L, O, which you must tie to the four quarters with the four cords, exactly to the height of the cincture; take another hoop, and tie it likewise to the four cords G, B, K, P, against the middle of the thighs, and the third in the like manner to the same cords, high as the ancles, and then place some very light branches of trees quite round these hoops, and tie them to three hoops, ordering them so that the birds may not see the person within the machine with his gun; but in case he finds that the birds seem to discern him, he must advance very gently towards them.

The birds, which keep moving continually, seeing him come near, will fancy it is themselves that drew near the tree, and not the tree near them, by which means he may come near enough to fire upon them.

The best time to make use of this machine is in the morning, when the birds are returning out of the fields; for he may fire upon them as they pass, because they will not pass all together, but in several flocks.

APPUI, or stay upon the hand, is the reciprocal sense between the horse's mouth and the bridle-hand, or the sense of the action of the bridle in the horseman's hand.

The true and right *appui* of the hand, is the nice bearing or stay of the bridle; so that the horse, awed by the sensibility and tenderness of the parts of his mouth, dare not rest much upon the bitt-mouth, nor chack or beat upon the hand to withstand it.

Such a horse has a dull, deaf, *appui*; that is, he has a good mouth, but his tongue is so thick that the bitt can't work or bear upon the bars; for the tongue being not sensible, or tender as the bars, is benumbed or hardened by the bitt: so the *appui* is not good. This and the following are terms used of an *appui*.

The bitt does not press the bars in the quick, by reason of the grossness of the tongue, or else of the lips.

Your horse has a rest or stay that forces the hand, which shews that he has a bad mouth.

This horse has no *appui*, no rest upon the hand; that is, he dreads the bitt-mouth, he is apprehensive of the hand, and he cannot suffer the bitt to press, or bear, though never so little, upon the parts of his mouth; and thus it comes to pass he does not easily obey the bridle.

A horse that is taught a good *appui*, if you mean to give that horse a good rest upon the hand, it behoves you to gallop him and put him often back; a long stretch gallop is very proper for the same end, for in galloping he gives the horseman an opportunity of bearing upon the hand.

Such a horse has too much *appui*, he throws himself too much upon the bitt; a horse that has a fine stay or rest upon the hand, *i.e.* equal, firm, and light, or one that obeys the bridle. *See* HAND.

A full *appui* upon the hand, is a firm stay, without resting very heavy, and without bearing upon the hand.

Horses for the army ought to have a full *appui* upon the hand.

A more than full rest or *appui* upon the hand, is said of a horse that is stopped with some force; but still so that he does not force the hand. This *appui* is good for such riders as depend upon the bridle, instead of their thighs.

APRIL.

Of Fly-fishing in the Month of April; *or the Flies taken for fishing in that Month; or the making of artificial Flies.*

All the same tackles and flies that were taken in the month of *March*, will be taken in this month also; (see MARCH) with this distinction only, concerning the flies, that all the browns be lapped with red silk, and the duns with yellow.

1. To these, a small bright brown, made of spaniel's fur, with a light grey wing, in a bright day, and a clear water, is very well taken.

2. There is also a little dark brown, the dubbing of that colour, and some violet camlet mixt; and the wing of the grey feather of a mallard.

Also dub with the hair of a dark brown spaniel, or calf, that looks ruddy by being exposed to wind and weather, warp with yellow. Wing dark starling's feather. Taken from eight to eleven.

This

This is a good fly, and is to be seen in most rivers; but so variable in its hue, as the season advances, that it requires the closest attention to the natural fly, to adapt the materials for making it artificially; which is also the case with the violet or ash-coloured dun. When this fly first appears, it is nearly of a chocolate colour; from which by the middle of *May*, it has been observed to deviate to almost a lemon colour: northern anglers call it, by way of eminence, the dark brown; others call it, the four-winged brown: it has four wings lying flat on its back, something longer than the body, which is longish, but not taper; this fly must be made on a smallish hook.

3. From the sixth of this month to the tenth, there is a fly, called the violet-fly, made of a dark violet stuff, with the wings of the grey feathers of a mallard.

4. About the 12th of this month comes in the fly, called the whirling-dun; which is taken every day, about the mid-time of the day, all this month through; and by fits, from thence to the end of *June;* and is commonly made of the down of a fox's cub, which is of an ash colour at the roots next the skin, and ribb'd about without yellow silk, the wings of the pale grey feather of the mallard.

Also you may use an artificial fly, called *the little whirling-dun*, which is made thus: the body fox-cub, and a little light ruddy brown mixed, warp with grey or ruddy silk, a red hackle under the wing; wing of a land-rail, or ruddy brown chicken, which is better.

A killing fly in a blustering day, as the great whirling-dun is in the evening, and late at night.

5. There is also a yellow dun; the dubbing of camel's hair, and yellow camlet, and wool mixt, and a white grey wing. Also dub with a small quantity of pale yellow crewel mixed with fox-cub down from the tail, and warp with yellow; wing of a palish starling's feather.

Taken from eight to eleven, and from two to four.

6. There is also this month another little brown fly, besides that mentioned before, made with a very slender body, the dubbing of dark brown and violet camlet mixt, and a grey wing; which though the direction for making be like the other, is yet another fly, and will take when the other will not, especially in a bright day and clear water.

7. About the 20th of this month comes in a fly, called the horse-flesh fly; the dubbing of which is a blue mohair, with pink-coloured and red tammy mixt, a light-coloured wing, and a dark brown head. This fly is taken best in the evening; and kills from two hours before sun-set till twilight, and is taken the month through.

To the former flies may be added:

1. Light Bloa. Body, light fox-cub fur, a little light foal's hair, a little squirrel's bloa, and the whitish yellow of the same, all these well mixed together; warp with yellow silk: wing, of a light fieldfare's feather.

2. Dun. Body, dunnest silmert, or martern's fur; *Indian* fox-dun; light dun fox-cub; coarse hair of the stump of a squirrel's tail of a brightish brown, or a yellowish cast; warp with yellow silk: wing, the light feather of a fieldfare.

3. Plain Hackle. Body, black ostrich herl, with red or black cock's hackle over it; and in hot weather add gold twist.

4. Red Hackle. Body, red silk and gold-twist, and a red cock's hackle till *June*. Afterwards use orange silk for the body. An excellent fly.

N. B. This is more properly the orange-fly. It resembles in colour a *Seville* orange. Wings may be added, either of a ruddy hen or chicken, or of the softest feather of a rook's wing; the first will give it an orange, the latter a dunnish hue. It has four wings, two next the body, of a very dark grey colour, and two serving as a case over them, sometimes of a dirty blackish colour, and sometimes of an orange colour.

5. Bloa Watchet. Is a small fly, and appears on the water in a cold day, (hook No. 9 or 10, *in Plate Angling)* the body, fur of a water-rat, black part of a hare's scut, the pale roots cut off, a very little brown bear's hair: warp with pale brown, or olive-coloured silk: wing, of a hen blackbird.

6. Yellow Watchet. Body, water-rat's fur, the blackest part of a hare's scut, greenish yellow crewel for feet; warp with green silk: wing, the lightest part of a blackbird's feather.

7. Knotted-Grey Gnat. Body, darkest part of a hare's scut, dark brown foal's hair, dark fur of the back of an old fox; warp with grey silk: wing, the bloa feather of a fieldfare.

8. Green-Tail. Body, dark part of a hare's scut, and darkest bloa fur of an old fox: light part of a squirrel's tail, and a hair or two of the coarse brownish part of it for feet; warp with ash-coloured silk: wing, of a hen pheasant.

9. Sand Fly. Body, dark brown foal's hair, a little bloa squirrel's fur, and the whitish yellow of the same; warp with yellow silk: wing, the light part of a fieldfare's feather.

10. Bright Bear. Dubbing, of bright bear's hair, warped with sad cloth-coloured silk: wings, of a shepstare's quill feather: others dub the body with yellow silk, which is better.

11. Yellow-Dun. Dubbing, of yellow wool, and ash-coloured fox-cub down mixed together, dubbed with yellow silk: wings, of the feather of a shepstare's quill: others dub it with dun-bear's hair, and the yellow fur got from a martern's skin, mixed together, and with yellow silk: wings, of a shepstare's quill-feather. Make two other flies, their bodies dubbed as the last; but in the one mingle sanded hog's down: wings, of a shepstare's quill-feather: and there is also taken an excellent fly, made of dun-bear's hair, yellow martern's fur, sanded hog's down, and black hog's down, all mixed in equal proportion together; warped with yellow silk: wings, of the feather of a shepstare's quill. These several flies mentioned for *April*, are very good, and will be taken all the spring and summer.

AQUATIC, that lives, breeds, or grows, in or about the water; as aquatic animals, plants, *&c.*

ARABIAN HORSE. Gentlemen and merchants who

who have travelled those parts, report, that the right *Arabian* horses are valued at an incredible and intolerable price; being valued at 500*l.* and as others say, at 1, 2, and 3000*l.* an horse: that the *Arabs* are as careful of keeping the genealogies of their horses, as princes in keeping their pedigrees; that they keep them with medals; and that each son's portion is usually two suits of arms, and one of their horses.

The *Arabs* boast, that they will ride fourscore miles without drawing bitt; but this has been performed by some of our *English* horses: and much more was done by a highwayman's horse, who having committed a robbery, on the same day rode from *London* to *York*, being 150 miles.

Notwithstanding their great value, and the difficulty of bringing them from *Scandaroon* to *England* by sea, yet by the care, and at the charge of some breeders in the north of *England*, the *Arabian* horse has been no stranger to those parts; and perhaps at this day some of the race may be seen there, if not the true *Arabian* stallion. *See* STALLION.

Mr. LAWRENCE, in his Treatise on Horses, says, the far greater part of those horses brought over to this country, under the general appellation of *Arabians*, have never seen *Arabia*, or have been of its inferior breed. They are usually purchased in the *Levant*, *Barbary*, or the *East-Indies*, by persons totally unacquainted with horses, or at any rate with the peculiar purpose for which such horses are designed; hence a number of inferior and half-bred *Arabians* have been brought over at a useless expence, to deteriorate, instead of amending, our racing breed, and to bring *Arabian* blood into disrepute. He had seen about a score southern horses, called *Arabians*, at different times, not one among which appeared to be a true mountain horse. Those which were lately at the Veterinary College, and which were imported from *India*, were evidently of a mixed breed; and the *Arabian* at *Hampstead*, appeared upon the slightest survey, to be no more than a three-part bred horse, well adapted to get saddle and coach-horses. These remarks may serve to account for the defects of the new blood, as it has been styled upon the turf; and as sufficient reasons why the produce of *Arabians* so seldom run their course through.

The horse next in quality to the *Arab*, is the Mountain Barb: this approximation arises from similarity of climate probably, and from an attention to pedigree by the great men, and other inhabitants of *Barbary*. The Barb is less than the *Arabian*, very deep breasted, but rather of asinine or mulish appearance; if genuine, he gets true and stout runners.

A material question arises here, have we any farther occasion for *Arabian* blood, and will not our *English* courser degenerate, in process of time, without an occasional recurrence to the parent stock? I will take upon me to answer this question in part, or rather I have already done it: we can have no sort of need of such foreign horses as are usually imported, for the plainest reason in the world, we possess much better of our own native stock. But this makes nothing against the propriety of endeavouring to obtain genuine *Arabian* coursers. We ought never to remain stationary and satisfied while there exists a possibility of improvement; the vast advantages resulting from the accidental importation of a very few real good horses has been amply proved, and in my opinion, the prosecution of a concerted plan for obtaining a further supply, would be an object not unworthy the attention of a gentleman of the turf, either in the view of curiosity or profit; the plan best adapted to that end is matter of inquiry.

I have never heard, that any properly qualified person has been sent to *Arabia* for the purpose of purchasing horses, nevertheless I believe such to be the only probable method of obtaining the genuine stock in request. The tenaciousness of the *Arabians* of their highest bred horses, has been long known, and very few, or none of such, ever find their way to the great fairs in the eastern countries, where the common *Arabian*, and other eastern horses, are usually purchased.

The following is the best account of the *Arabian* horses which I have been able to obtain, either from reading or inquiry. They have in that country, three distinct breeds, or rather, two varieties from the original genus; from analogy of qualification the three classes may be properly enough compared with our racers, hunters, and common bred horses. The distinctive appellations of the *Arab* horses are, Kehilani or Cocklani, Kehidischi or Guideski, and Atticki. The first, or Cocklani, are the original genus, bred in the middle or mountainous country, where it is said a few are yet to be found in the wild, or natural state. The *Arabs* pretend to have pedigrees of this illustrious race, upwards of two thousand years old; but whether their private records accord with truth exactly or not, is of little moment, since the antiquity and character of the Mountain *Arabian* horse has the fullest sanction of both ancient history and modern experience. The Atticki, or inferior breed, may probably have been the original produce of the low country, and the middle variety may have resulted from a mixture of mountain and low-country stock. The *Arabians* are seldom willing to part with their best mares, at any price; and the value of a true bred one, whether horse or mare, is said to amount to several hundred pounds in the country.

The *Arabian* horses are fed with dates, milk, and corn; it is not to be supposed, that in such a country, they have the ample allowance of corn, usual in this; nevertheless it is confidently asserted, that the superior breed of them will travel eighty or a hundred miles in a day, for several successive days, over the sand and stones of that sultry climate. Dr. BLUMENBACH, who has within these few years written a celebrated treatise on the native varieties of the human species, says, "that all animals destitute of the dark pigment of the "eye, are a mere altered breed." How far that observation is entitled to dependance, I have never had an opportunity to consider or examine, but the purchase of a particular breed of animals would surely be least liable to deception in the original country where they were bred. The external characteristic of original genus, is uniformity, or universal symmetry; and the true-bred *Arab* is distinguished by his silken hair, and soft flexible skin, deer-like hoofs and pasterns, small muzzle, full eye, small well-turned head, joined to the

the neck with a curve, capacious shoulders, extensive angle of the hock, length and extent of thigh, large sinews, and flat bones. I have often observed that convulsive snatching up, and turning out the feet, in the gait of horses said to be *Arabians*, and have ever looked upon it as the indication of a spurious breed; the best *Arabs*, which I have seen, having been good goers, many of them true daisey cutters. The pawing method of going, cannot always be the consequence of menage, since I have remarked it to descend from a reputed *Arabian*, through several generations.

ARCHED LEGS; a horse is said to have arched legs when his knees are bended archwise.

This expression relates to fore-quarters, and the infirmity here signified, happens to such horses as have their legs spoiled with travelling.

The horses called Brassicourts, have likewise their knees bended arch-wise; but this deformity is natural to them.

ARM OF A HORSE. *See* FORE THIGH.

To ARM. A horse is said to arm himself when he presses down his head, as if he would check, and bends his neck so as to rest the branches of his bridle upon his counter, in order to disobey the bitt mouth, and guard his bars and his mouth, which are relieved by over-bending his neck.

Since your horse arms himself, give him a knee'd branch that will raise him, and make him carry his head well. *See*, TO CARRY LOW.

ARM WITH THE LIPS.

A horse is said to arm himself with the lips, when he covers his bars with his lips, and makes the pressure of the bitt too deaf and firm; this is commonly done by thick-lipped horses. You must order your bitt-maker to forge you a bitt-mouth, with a cannon, or scratch-mouth, that is broader near the bankets than at the place of its pressure, or rest upon the bars; and this will hinder your horse from arming himself with his lips.

Sometimes we say, the lips arm the bar; *i. e.* cover, or screen it. *See* DISARM.

ARMAN, a confection of wonderful efficacy to prevent a total loss of appetite in horses. *See* DRENCH.

ARRESTS, are mangy humours upon the sinews of the hinder legs of a horse, between the ham and the pastern. They seldom appear upon the shank sinew.

Their names are taken from their likeness to the arrests or the small bones of a fish. *See* RAT-TAIL.

ARZEL, a horse is said to be arzel, that has a white mark upon his far-foot behind.

Your superstitious cavaliers persuade themselves, that by an unavoidable fatality, such horses are unfortunate in battle: and such is the strength of their prejudice that they do not care to use them.

ASS, a quadruped, in many respects resembling the horse, though by no means equal in beauty and symmetry to that noble animal. It has a long head and ears, a body round, and covered with a coarse short fur, of a light dun colour; a black streak down its back and across its shoulders; a tail bushy at the end, but rather bare of hair on the upper part; it is slow, lazy, and dull; patient under hard labour, and proper to draw or carry heavy loads. It is subject to but few distempers, lives on little, and is very serviceable. When loose, it will find its own living, summer and winter, unless the snow be very deep on the ground, feeding on thistles, carix, and other rough and prickly herbs. When the weather is severe and the snow deep, it must be housed and stand particularly dry, as its nature is addicted to phlegm and melancholy; it must be fed with sweet straw, cut short, and chaff or pease-haume: it will also eat biscuit, or coarse bread, which is very nourishing.

ASSES, *choice of, and time of covering*. Choose the largest and fairest, as well as the strongest in proportion of limbs, and of a sound constitution; if they are not sound it is denoted by the hanging of the ears, dulness of their eyes, and shortness of breathing; asses with either of these imperfections should be rejected. The male should be at least three years old; from thence to ten he will be sufficiently serviceable, but, when past that age, declines. The female at two years old will bring forth fine lusty colts, though, for a strong labouring breed, you may suffer her to be two years and a half or three years old before she takes the male; and when she has been covered let her be driven about for the space of an hour or an hour and a half, that she may retain the seed. She brings forth her foal in a twelvemonth, but, to preserve a good breed, she should not produce more than one in two years. The best time of covering is from the latter end of *May* to the beginning of *June*, nor must the female be hard worked whilst with foal, for fear of casting; but the more the male is worked, in moderation, the better he will thrive, as it takes away his leacherousness, which, if idle, pines and consumes him.

ASSES, *ordering, breaking, &c. of*. When the foal is cast, it is proper to let it run a year with the dam, and then wean it by tying up and giving it grass, and sometimes milk; and, when it has forgot the teat, turn it out into pasture, but, if it be in winter, you must then feed it at times, till it be hardened to shift better for itself.

At two years old break him, or if he be of a good growth let it alone till longer, as at three years, and this may be easily done by laying small weights on his back, and increasing them by degrees; then set a boy upon him, and so increase the weights as you think fit, which is sufficient for him to bear. These creatures above all things delight not in wet, and very nicely touch the water in drinking, as if they feared it, which some attribute to their seeing the shadow of their ears in the water, which affrights them, but I attribute it rather to their flegmatic constitution. They are often troubled with dreams, which make them moan and cry out in their sleep, proceeding from much melancholy, to which they are greatly inclined; and indeed travelling and lying in the wet is a great injury to them, and from it proceeds most of the diseases they are afflicted withal. Put them not up in strait rooms, lest in their dreams they beat and bruise themselves against the sides of them, and indeed they require large rooms and hilly ground.

ASSART, an offence committed in a forest, by

 plucking

plucking up those woods by the roots that are thickets or coverts to the forest.

ASTHMA, IN FARRIERY, is either moist or dry: the moist, is when there is a free discharge of matter by the nostrils in consequence of coughing; the dry, is when the cough produces little or no discharge.

The moist asthma is a cough that proceeds from a load of phlegm, or of slimy matter, discharged into the vessels of the lungs, occasioning difficulty, and sometimes great oppression in breathing: it is manifested by the following symptoms: the flanks have a sudden and quick motion; the horse breathes short, but not with his nostrils open, as is observed in horses that are feverish or broken-winded: he first wheezes some time, and rattles in his throat; then he coughs; and this cough is sometimes dry, at others it is moist: he frequently snorts after coughing, and throws up pieces of phlegm through the mouth or nose; and after drinking he frequently does the same; he also does the same at the beginning and ending of his exercise: this discharge gives him considerable relief. Some horses wheeze so excessively, and are so extremely short-winded, that they cannot easily move until they have been gently exercised for some time in the air; though after that they will go through their work to admiration.

This moist asthma should carefully be distinguished from that pursiveness and thick-windedness which full or foul feeding occasions; also from the same symptom when it is occasioned by a want of exercise, or taking up a horse from winter-grass; in which cases the former is cured by a decrease, and the latter by an increase of feeding.

Asthmatic complaints, whether the moist or the dry, are usually tedious and obstinate; but if the horse is young, and the disease not of long standing, a recovery is sometimes brought about. The exercise should be moderate, and in open air; the diet should be sparing, for, in all diseases of the lungs a full stomach renders the oppression greater: their hay should be of the best sort, always sprinkled with water, given in small quantities, and the oftener in proportion, as there is less at one time: their corn and water should be managed with the same care.

If the horse is full of rich blood, bleed freely, and repeat the operation as often as the oppression and the difficulty of breathing may require: if his blood is poor, proportionably less should be taken away; and unless the case be very urgent, bleeding may be omitted.

Give over night a bolus with two drachms of calomel, and next morning the following purging ball:

Take one ounce of aloes; of gum ammoniacum, assa-fœtida, galbanum, and oil of aniseeds, of each two drachms; treacle, enough to make them into a ball.

This bolus and purging ball may be repeated at due distances of time, and on the days free from purging give every morning one of the following pectoral balls.

Pectoral Ball.

Take of the cordial ball, half an ounce; of powdered squills and Barbadoes tar, (or, in its stead, the common balsam of sulphur) of each two drachms: make them into a ball for one dose. Or,

Take gum ammoniacum, assa-fœtida, galbanum, and liver of antimony, of each two ounces; fresh squills, enough to form a paste; which make into balls of from one to two ounces each, according to the greater or less violence of the disease.

The dry asthma, called also the nervous asthma, is a cough proceeding from some irritation on the nerves in the membranous part of the lungs and midriff; but there is not any thing discharged by it except a little clear water from the nose, notwithstanding the violence of the cough, and its continuance when once begun, which for some time is almost incessant; the coughing-fits have no regular return; they are more frequent when walking than in other exercise, except when suddenly stopt after hard riding, &c. on which occasions the cough is very troublesome; after drinking it is troublesome too: and a change of weather will sometimes make it very teazing for two or three days; but it is generally worst in a morning. Sometimes, when no particular circumstance occurs to disorder the horse, the cough will be seldom heard for a week or two together; and yet, though this cough is so teazing, the horse eats heartily, hunts, and performs his business very well; if he is tolerably treated, he keeps a good coat, and maintains most of the usual signs of health.

At eight years of age the dry asthma commonly makes its appearance. The cough may begin at four or five, and at times be very violent; but at eight, and after, he labours with his flanks, and that in the greatest degree after feeding: he hath now an almost constant working of his nostrils, and a motion of his fundament; after which it usually terminates in broken wind, or in death.

Bleeding in moderate quantities is more or less necessary, according to the strength of the horse, and the difficulty of breathing; after which give the following bolus at night, repeat it the next night, and on the morning following work them off with a proper purge.

The Preparative Bolus.

Take calomel, two drachms; and honey, enough to make a bolus.

In eight or ten days repeat one bolus at night, and the next morning repeat the purge.

During the operation of these medicines, it is necessary to keep the horse well clothed and littered: and he should be well supplied with scalded bran and warm water.

After the second purge give one of the following balls every morning, letting him fast two hours after each, and continue their use for two months, or longer.

Asthmatic Balls.

Take antimony, finely levigated, half a pound; gum guaiacum, four ounces; myrrh and gum ammoniacum,

niacum, of each two ounces; Venice ſoap, half a pound; honey or treacle, enough to make a maſs, of which two ounces may be taken for one ball. Or,

Take gum ammoniacum, freſh ſquills, and Venice ſoap, of each four ounces; anniſated balſam of ſulphur, one ounce; make them into a maſs, of which two ounces may be made into a ball.

If the diſeaſe be obſtinate, the bolus with calomel may be repeated at proper intervals, with or without the purge, taking care that it does not ſalivate.

On diſſecting horſes that have laboured under the dry aſthma for ſome time, the heart and the organs of reſpiration appear ſomewhat enlarged: which preternatural enlargement is an effect of the continual labouring with the breath, and not the cauſe of the diſeaſe. *See* BROKEN WIND.

ATTACHMENTS, (COURT OF) a court belonging to the foreſt, wherein the officers do nothing but receive the attachments of the foreſters, and inroll them in the verdurer's rolls, that they may be in readineſs againſt the time that the court of *Swainmote* is kept; for that this court cannot determine any offence or treſpaſs, if the value thereof be above four-pence; for all above that value muſt be inrolled in the verdurer's rolls, and ſent from thence to the court of *Swainmote*, to be tried there according to the laws of the foreſt.

For notwithſtanding the greateſt part of all the preſentments do firſt begin in this court, yet this court cannot proceed farther therein; neither is a preſentment in this court any conviction againſt the offender in thoſe offences, becauſe he may traverſe the ſame, until it has paſſed the court of *Swainmote;* to which all treſpaſſes preſented at the court of attachments muſt neceſſarily come, before the offenders can be puniſhed, or ſtand convicted, as guilty in law of their offences.

ATTAINT, is a blow, or wound, received by a horſe in his inner feet, from another horſe that follows him too cloſe: or from an over reach in froſty weather, when a horſe being rough ſhod, or having ſhoes with long calkers, ſtrikes his hinder feet againſt his fore legs, or leg. This word is likewiſe uſed to ſignify a blow that the horſe's foot receives from the fore, or hinder oppoſite foot; or a blow given by one of the hinder feet ſtriking againſt the cronet of the fore foot. Hence they ſay,

Your horſe could not have given himſelf a ruder attaint: for I find with the probe, that it penetrates between the hoof and the coffin bone, which give reaſon to ſuſpect that the tendon is affected, and that the attaint reaches to the cronet.

Upper attaint is a violent blow given with the two hind feet, upon the ſinew of the fore legs.

To cure an attaint, firſt clip away the hair, and the battered ſkin or fleſh which you will find hang looſe and uſeleſs; then waſh the dirt from it with water and ſalt, and anoint it with neat's-foot oil, or mutton ſuet; after this dip a wad of flax in the whites of eggs, and bind it hard on the wound. Repeat the wad daily till healed.

ATTIRE OF A DEER. Of a ſtag, if perfect, is called the burr: the pearls, (the little knobs on it) the beam; the gutters, the antler; the ſur-antler royal, ſur-royal; and all at top the croches.

OF A BUCK; the burr, the beam; the brow-antler, the fur-antler; the advancer, palm, and ſpellers.

If croches grow in the form of a man's hand, it is then called a palmed head. Heads bearing not above three or four, the croches being placed aloft, all of one height, are called crowned heads: heads having doubling croches, are called forked heads; becauſe the croches are planted on the top of the beam, like forks.

If you are aſked what a ſtag bears, you are only to reckon the croches he bears, and never to expreſs an odd number: as if he hath four croches on his near horn, and five on his far; you muſt ſay, he bears ten, a falſe right on his near horn, (for all that the beam bears are called rights:) but if four on the near horn, you may ſay he bears twelve, a double falſe right on the near horn: for you muſt not only make the number even, but alſo the horns even with that diſtinction.

AVANCERS, the ſame as ADVANCERS.

AUBIN, is a broken going, or pace of a horſe between an amble and a gallop: which is not eſteemed.

AVERTI, a French word uſed in the manage, as applied to the pace or motion of a horſe: ſignifying a motion that is injoined, regulated, and required in the leſſons.

Pas ecoute, and Pas d'ecole, (*i. e.* liſtening paces, or ſchool paces) ſignify the ſame thing.

AUGUST, the flies of this month are the ſame as uſed in *July;* which ſee.

1. Then another ANT-FLY, the dubbing of the black brown hair of a cow, ſome red warpt in for the tag of his tail, and a dark wing: a killing fly.

2. Next, a fly called the FERN-FLY; the dubbing of the fur of a hare's neck; and that is of the colour of fern, or brackin; with a darkiſh grey wing of a mallard's feather. A killer too.

3. Beſides thoſe, there is a white hackle; the body of white mohair, and wrapped about with a white feather; and this is aſſuredly taken for thiſtle-down.

4. We have alſo this month a HAIRY LONG-LEGS; the body made of bear's-dun, and blue wool, mixt, and a brown hackle feather over all.

5. Alſo another made of lightiſh bear's hair and a dunniſh hackle; add a few hairs or light blue mohair and a little fox-cub down, warp with light grey or pale blue ſilk; the head large, the latter is to be uſed chiefly in a cloudy windy day, with a long line, and the head of this inſect only.

The PEACOCK HACKLE, and three following flies of *May*, and the two ſubſequent months, and the brown of the laſt month, ſerve alſo for this; in which alſo are taken the

1. GREY-FLY. Body, light grey foal's hair mixed with the dark part of a hare's ſcut; warp with grey ſilk: wing, a hen-pheaſant's feather.

2. BLACK ANT-FLY. Body, darkeſt part of a hare's ſcut, and dark brown wool, or ſheep's ruſſet, equally mixed, and one ſingle ruddy herl of a peacock, all twiſt-

ed together; warp with copper-coloured silk: wing, a fieldfare's feather.

3. Brown Ant-Fly. Body, bright brown bear's hair, much weather beaten, almost of an orange colour towards the tail, and therefore a few hairs of a light brown, or flame coloured calf, or spaniel's hair to be added in the tail part; warp with orange-coloured silk: wing, the light feather of a fieldfare or starling.

Note. The following method of imitating the *black* and *brown* Ant-Fly with other materials, has been found to succeed.

1. Black-Ant. Brown bear's hair, and a little grey squirrel's hair next the roots, peacock herl; warp with copper-colour or ash.

2. Brown-Ant. Light barge-sail, seal's fur and brown bear's hair, peacock herl; warp with orange: wings of this and the former, starling's feather longer than the body.

3. Buss-Brown. Dubbing, of the light brown hair of a cur; the head black: wings of the feather of a red hen; warped with orange-coloured silk.

4. Hearth-Fly. Dubbing, of the wool of an old black sheep, with some grey hairs in it, for the body and head: wings of a light shepstare's quill-feather, warped on with black silk.

5. Pismire-Fly. Dubbing, of bright brown bear's hair, warped with red silk: wings of the saddest-coloured shepstare's quill-feather. A good fly.

AVIARY, a place set apart for feeding and propagating birds. It should be so large as to give the birds some freedom of flight, and turfed to avoid the appearance of foulness on the floor.

AIRY, or AERY, a nest or company of hawks or eagles, so called from the old French word *aire*. See Hawk.

BABBLING, is said of hounds which are too busy after they have found a good scent.

BACK. To back a horse, or mount a horse, *ados*, is to mount him bare-backed or without a saddle. A weak-backed horse is apt to stumble: such a horse defends himself with his back, is when he leaps and plays with his fillets, and doubles his reins to incommode his rider.

Short-backed. It is a common observation, that a horse which wants length in the back will be sure to have it in some improper place, the legs for instance. Short-backed stallions are very apt to get leggy, spider-shaped stock. A horse which stands over a good deal of ground, may be a goer, merely by virtue of his general length, if his shoulder be not too unfavourably made.

The spine, being too short, is not sufficienly pliable, and the want of room between the ribs, and hip-bones, occasions the entrails to be so pressed towards the lungs in action, as in a considerable degree to impede respiration. Length of back will always be found advantageous, when there is sufficient general substance, and particularly, width and swell of the muscles in the loins and fillets; but short backs are infinitely to be preferred to long, thin shapes, with hollow flanks, and narrow weak loins.

Hollow backs are apparently weak, and the curvature of the spine must in degree hinder action, as well as all other irregularities of form. Horses of this form, have sometimes a very elevated crest, look handsomely mounted, give an easy, convenient seat, and are pleasant goers. High, or bream-backed horses, throw the saddle forward, and are liable to be galled by it, and are often hard stumping goers. But a horse (unless a capital one be the object) must never be rejected, merely on account of being either hollow, or swine-backed.

Back: to ease a pain in the back of a horse; bruise well together the following ingredients, heat them over a fire, and apply them to the part as hot as the horse will bear it, as a poultice:

Of new cow-dung, two ounces; the roots of burdock, washed and sliced, two ounces; borage and buglos, of each a handful; and oil of bays, six ounces.

Back *of a* Horse, to strengthen. A weakness in the back frequently happens in consequence of cold and watery humours affecting the sinews, or of jellied water settling in the joints, or too often covering mares. To remedy this disorder,

Take horse-radish roots, a pound; bay-leaves, two handfuls; and the bark of elder, the like quantity; boil these in man's urine, and with the liquid bathe the back as hot as convenient, giving him for diet, oats and splint beans; and each morning, fasting, a ball about the size of a pigeon's egg, made of the following articles:

Liquorice powder, two ounces; hartshorn beaten to powder, one ounce; fenugreek and hyssop-seed, steeped, of each two ounces; and add as much Malaga wine as will make it a stiff paste.

Back, in the *Manege*, and among *Farriers*. A horse's *back* should be straight, not hollow, which is called *saddle-backed;* horses of this kind are generally light, and carry their heads high, but want in strength and service. A horse with a weak back is apt to stumble.

In the French riding-schools, to mount a horse *à dos*, is to mount him bare-backed, without a saddle.

Back-wen, *in Horses*, a disorder caused by the assembling of bad humours to one place, and there contracting into a tumour. To remove them,

Take the oil of bays, water of tartar, and soap-boilers' lees, mix them well; and being very hot, dip a cloth therein, and lay it upon the place affected, and continue often so to do; and, the humours thereby being dispersed, the swelling will sink and disappear.

BACK-SWAYED, is a pain and weakness in the reins, caused by a fall, carrying of some heavy burdens, or some other violent accident; and sometimes the horse is also hurt inwardly, which brings him into the greatest disorder imaginable.

REMEDY.

Take a plentiful deal of blood from the neck, after which apply those things that are proper to promote sweat, such as sweating in a dunghill, if the common remedies fail: his diet must be opening, and the greatest care taken to prevent a fever. He ought to be girt pretty

pretty firm over his reins, yet not so as to hinder the motion of his flanks, he ought also to be-hung up, or kept in a steady posture; but, if the weakness continues, you may proceed to give the fire, which must be done by piercing the skin, avoiding as much as possible to burn him near the flanks, otherwise it will be apt to create a violent swelling in the sheath, which would very soon bring on a fever.

Strains in the hips are to be accounted for in the same manner as those in the back and shoulders, only they are not so apt to create a fever as the swaying of the back. Sometimes the round head of the thigh-bone is by the violence of the accident thrust out of its socket, and then a horse is said to be *hip-shot;* but if it is not reduced immediately, he will be irrecoverably lame. The cure consists in the same applications that are proper for a shoulder-splait.

BACKING A COLT, after he has been exercised some time, morning and evening, and you find him obedient, as directed under the head of COLT; and when you have made him trot a good pace about in your hand, see whether your tackling be firm and good, and every thing in its true and proper place; when having one to stay his head, and govern the chafing rein, you may take his back, yet not suddenly, but by degrees, with divers heavings and half-risings, which if he endure patiently, then settle yourself; but if he shrink and dislike it, then forbear to mount, and chafe him about again, and then offer to mount, and do this till he be willing to receive you.

After you are settled, receive your stirrups, and cherish him, put your toes forward, let him that stays his head lead him forwards half a dozen paces, then cherish him again, shake and move yourself on the saddle, then let the stayer of his head remove his hand a little from the caveson, as you thrust your toes forwards, let him move him forward with his rein, till you have made him apprehend your own motion of the body, and foot, which must go equally together, and with spirit also, that he may go forward without the other's assistance, and stay upon the restraint of your own hands; then cherish him, and give grass, and bread to eat; alight from his back, mount and unmount twice or thrice together, ever mixing them with cherishings; thus exercise him, till he be made perfect in going forwards, and standing still at pleasure; this being done, the long rein may be laid aside, and the band about the neck, and only use the trenches and caveson with the martingal, and let the groom lead the way before, or another horse going only strait forwards, and make him stand still when you please, which will soon be effected by trotting after another horse, sometimes equal with him, sometimes before, so that he fix upon no certainty but your own pleasure, and be sure to have regard to the well carriage of his neck and head, and as the martingal slackens, so straighten it from time to time.

BACK WORM, or filander; a disease incident to hawks.

These worms are about half a yard long, trouble the birds very much, and in time will kill them; they lie wrapt up in a thin skin about the reins, and proceed from gross and viscous humours in the bowels, occasioned through ill digestion and want of natural heat.

This distemper is easily discerned by these symptoms, *viz.* by the hawk's stinking breath, casting her gorge, croaking in the night, trembling, ruffling, and writhing her tail; by the muting, which is small and unclean; and also by keeping at a stay in a low state of health.

The back worm is rarely quite killed, but a careful falconer giving her cloves of garlic, steeped in wormwood once a month, and once a fortnight, against his putting her into the mew, which will qualify the worm; without this care she will be suddenly spoiled.

There is another sort of filander, which lies in the gut or pannel, being long, small, white and red worms—for cure take aloes hepatic, filings of iron, nutmeg, and as much honey as will serve to make them into a pill, which give her in the morning as soon as she has cast; and after she has muted it clean away, then give her good hot meat. *See* WORMS.

BADGER, of this animal there are two kinds; the dog badger, so called, on account of resembling a dog in his feet; and a hog badger, as resembling a hog in his cloven feet.

The latter are different from the former, being whiter and larger, and having thicker heads and snouts; they do also differ in their food, the one eating flesh and carrion like a dog; and the other roots and fruits like a hog: and these kinds of badgers, where they have earths, use to cast their fiants, or dung, in a small hole, and cover it; whereas the dog badgers make their fiants at a good distance from their burrows, which are deep, with a variety of chambers, holes, and angles.

The hog badger, being fat and lazy, earths in open, easy, and light grounds, whereas the other sort frequent thickets, rocks, and mountainous places, making their retreats deeper and narrower.

A badger is known by several other names, as a grey, a brock, a boreson, or a bauson: the young are called pigs, the male is called the boar, and the female the sow.

The badger is naturally a very sleepy creature, and seldom stirs out but in the night season to seek his prey; and above all other food, hog's flesh is most grateful to his palate; insomuch, that if you take a piece of pork, and trail it over the badger's burrow, he will soon make his approach out.

They live to a great age, and when their sight fails them by reason of old age, they keep to their burrows, and receive their food from the younger.

They are of a very chilly and cold nature, and therefore will not go out when it snows. Their flesh is of a sweet rankish taste, but is eaten in many countries.

The best season to take them is in *September*.

They have very sharp and venomous teeth; their legs are longer on the right side than on the left, so that when they run, they chuse the side of an hill, bank, furrow, or cart-rut.

The dog-badger's ears, snout, and throat are yellowish, and they are longer legged than the hog-badger: they accompany not together, yet they both prey on all

all manner of fowl, young pigs, and the like food; doing great hurt in warrens.

They are ſtout and hardy in defending themſelves, and will endure ſevere blows; yet their noſe and ſnout is ſo tender, that a little blow thereon will kill them.

Although the badger and the fox are much alike in ſeveral qualities, yet they often fight with one another, eſpecially on the account of food, ſo that it is good ſport to ſee the conteſt between them.

The hunting and purſuing them, however, is much the ſame at the concluſion: but the badger runs to his earth or burrow, much ſooner than the fox, and being earthed, makes good and defends his caſtle much longer; and to ſay the truth, the pleaſure of the chaſe does chiefly conſiſt in the unkennelling and unearthing of them, which requires ſkill and labour.

You are to take notice, that although all hounds will eagerly purſue, and hunt both the fox and the badger, yet there is not one of them that will endure to feed on their fleſh; and there are ſome dogs more proper for this chaſe than others; thoſe are the terriers, ſpoken of in fox-hunting, which ſee.

The labour and ingenuity of badgers in making their burrows, is worth obſervation. When they earth, after they have entered a good depth, for the clearing the earth out, one lieth on his back, and another layeth earth on his belly; and ſo taking his hinder feet in his mouth, draweth him out of his burrow: and he having unladen himſelf of earth goeth to the ſame work again, and thus they do till their chambers, or places of retreat are finiſhed.

Then they proceed to gather in their furniture, that is, the materials for their couch or lodging, as ſtraw, leaves, moſs, and the like, which with their feet and head they wrap up ſo cloſe together, that they will get to their burrows a pretty good bundle. Some burrows have ſeven or eight diſtinct chambers.

Of hunting the BADGER.

In doing this, you muſt ſeek the earths and burrows where he lies, and in a clear moonſhine night go and ſtop all the burrows, except one or two, and therein place ſome ſacks, faſtened with drawing ſtrings, which may ſhut him in as ſoon as he ſtraineth the bag.

Some uſe no more than to ſet a hoop in the mouth of the ſack, and as ſoon as the badger is in the ſack and ſtraineth it, the ſack ſlippeth off the hoop and ſecures him in it, where he lies trembling till he is taken.

Theſe ſacks or bags being thus ſet, caſt off the hounds, beating about all the woods, coppices, hedges, and tufts, round about, for the compaſs of a mile or two, and what badgers are abroad, being alarmed by the hounds, will ſoon betake themſelves to their burrows; and obſerve that he who is placed to watch the ſacks, muſt ſtand cloſe and upon a clear wind; otherwiſe the badger will diſcover him, and will immediately fly ſome other way into his burrow.

But if the hounds can encounter him before he can take his ſanctuary, he will then ſtand at a bay like a boar, and make good ſport, vigorouſly biting and clawing the dogs. The general manner of their fighting, is lying on their backs, uſing both teeth and nails, and by blowing up their ſkins defend themſelves againſt all bites of the dogs, and blows of the men upon their noſes, as aforeſaid. And for the better preſervation of the dogs, it is good to put broad collars made of greys ſkins.

When the badger perceives the terriers to begin to yearn him in his burrow, he will ſtop the hole betwixt him and the terriers, and if they ſtill continue baying, he will remove his couch into another chamber, or part of the burrow, and ſo from one to another, barricading the way before them, as he retreats, until he can go no further.

If you intend to dig the badger out of the burrow, you muſt be provided with the ſame tools as for digging out a fox; and beſides you ſhould have a pail of water to refreſh the terriers, when they come out of the earth to take breath and cool themſelves.

It will alſo be neceſſary to put ſome ſmall bells about the necks of your terriers, which making a noiſe may cauſe the badger to bolt out.

The tools uſed for the digging out of the badger, being troubleſome to be carried on men's backs, may be brought in a cart.

In digging you muſt conſider the ſituation of the ground, by which you may judge where the chief angles are; for elſe, inſtead of advancing the work, you will hinder it.

In this order you may beſiege them in their holds, or caſtles, and may break their platforms, parapets, caſemates, and work to them with mines and countermines, until you have overcome them.

There are advantages which accrue by killing this animal. Their fleſh, blood, and greaſe, though they are not good food, yet are very uſeful for phyſicians, and apothecaries, for oils, ointments, ſalves, and powders for ſhortneſs of breath, the cough of the lungs, for the ſtone, ſprained ſinews, colt aches, &c. and the ſkin being well dreſſed, is very warm and good for antient people, who are troubled with paralytic diſtempers.

BAG, IN ANGLING. A line is ſaid to bag, when one hair, (after it is twiſted) runs up more than any of the reſt.

BAG, IN FARRIERY, is when, in order to retrieve a horſe's loſt appetite, they put an ounce of aſſafœtida, and as much powder of ſavin, into a bag, to be tied to the bitt, keeping him bridled for two hours, ſeveral times a day: as ſoon as the bag is taken off, he will fall to eating. The ſame bag will ſerve a long time.

BAIT; a thing prepared to take, or bring fiſhes to. *See* ALLURING FISH.

There are three ſorts of baits for taking fiſh: the natural ones, and thoſe generally are living, as worms of all kinds, eſpecially the red maggots, bobs, frogs, graſshoppers, bees, beetles, dores, butterflies, which are admirable for the chub, waſps, hornets, ſnails, ſmall fiſh, &c.

Next are the artificial baits, which are of two ſorts: firſt ſuch as imitate the living baits, eſpecially flies for every month and ſeaſon of the year; nay, almoſt

almost for every fish, so great is the variety of them, that frequent the meadows and rivers.

These flies are made on the bodies of your hooks, the bodies of your flies being made of wool, and the wings of several sorts of feathers, coloured to the life, resembling those you counterfeit, and with these draw your hook gently on the top of the water, and generally against the stream, and the fish will bite at them with greediness. *See* FLY-FISHING, ANGLING, &c.

The second sort of artificial baits, are pastes of several compositions, of which more in Article PASTE: but for the present, we are to observe, concerning the red, or earth worm, (for the taking of which, consult that article) it is good for small fish all the year round, and small fish are good baits for pikes at all times: sheeps blood and cheese are good bait in *April;* the bobs, dried wasps, and bees, are for *May;* brown flies for *June;* maggots, hornets, wasps, and bees for *July*; snails in *August;* grasshoppers in *September;* corn, bramble berries, and seeds, at the fall of the leaf; your artificial pastes are for *May*, *June*, and *July;* and frogs for *March*.

Concerning all your artificial flies, the great dun fly will do the latter end of *February*, if there be fair weather, for it is a time the air is warm, and that the fish begin to partake of the sun's heat, so that in reason you may expect they will bite freely.

The little dun fly is proper for *March;* the stone, or *May* fly, for *April:* the yellow for *May*; the black, dark, yellow and moorish fly for *June*; the wasp, and shell, and the cloudy, or blackish fly is for *August*; but generally fish more eagerly rise at these flies at this season, when most sorts of flies resort to the water side.

The best way to make these flies, is to get the living ones of the several kinds, thereby to imitate nature, both for shape, colour, or size, for the nearer the better.

Those fish which bite the most freely at flies are chubs, chevins, trouts, and salmon.

To make the great dun fly; let the body be of black wool, and the wings of the dun feather of a drake's tail.

The little dun fly has his body made of dun wool, and his wing of the mail of a partridge. These are for *March*.

The body of the stone, or *May* fly, must be of black wool, but under his wings and tail must be of a pale yellow, with some silk of that colour, and his wings must be of drake's down. This fly is for *April*.

The red or ruddy fly, must have his body made of reddish wool of the mail of a mallard, and the red feathers of a capon's tail. This fly is for *May*.

The yellow, or greenish fly, must have his body made of black wool, with a yellow list on each side, and the wings of a red cock's mail.

The moorish fly has his body made of duskish wool, and the wings of the blackish mail of a drake.

The tawny fly must be made of a tawny wool, the wings made contrary one against the other, of the whitish mail of a white drake. These flies are for *June*.

The wasp fly is made of black wool, capped about with yellow silk, and the wings of a buzzard's down, or of a drake's feather. This fly is for *July*.

The shell fly, termed also the green fly, has the body made of greenish wool, and his wing of the herle of a peacock's tail. This is also for *July*.

The cloudy dark fly must be made after a different manner, formed on a small piece of cork, bound about with black wool and black silk, and wings of the under mail of a mallard, with a black head.

When you draw it on your hook, be sure to do it so that no part of the hook be discerned. This fly is for *August*.

The rougher the bodies of the flies are, and the more shining, the better they are esteemed; and when you have got a set of good flies, they will serve you many years, if kept carefully.

Take this for a rule, that the brightest flies are for cloudy and dark weather, and the dark flies are for bright and clear weather.

It may not be improper to lay down some directions here, for artificial fly-fishing. First, observe to have the wind in your back, and in casting off your line, be sure the fly fall first to the water.

For every sort of fly have several of the same differing in colour, to suit the several waters and weathers.

In slow rivers, or still places, cast your line as far as you can, and let it sink a little, then gently draw it back, and let the fly float leisurely with the current: your line should be as long again as your rod, unless the river be very shallow and clogged up.

You must have a nimble hand, and quick eye, to strike presently upon the rising of the fish, otherwise the fish will be apt to throw out the hook, finding his mistake.

As to what concerns live baits, remember they are to be kept each sort by themselves, and to be fed with such things as they are wont to eat when at liberty.

The red worm takes much delight in black fat earth; if you mix some fennel chopt small with it, they will improve very much.

Give them sometimes a little ox or cow dung newly made; you may keep them in a box, or small bag.

But red worms, as also all other sorts of worms scour quickly, grow very tough and bright by putting them into a thin clout, greased with fresh butter, or grease, before you put them into moss, which is the best to keep them in; the moss must first be washed clean, and the water squeezed out: and for the food you are to give them, drop a spoonful of cream into the moss every three or four days, and remove the moss every week, keeping it in a cold place.

White great maggots are to be fed with sheep's suet, and beasts liver cut small.

Frogs and grasshoppers do well in wet moss and long grass, which must be moistened every night: cut off their legs and wings when you use them.

The bob, caddis-worm, cancer, and such like, are to be preserved with the same things where you take them.

Live flies must be used as you catch them.

The wasp, hornet, and humble bee, may be dried in an oven, after the bread is drawn, but have a care in

in ſcorching them; then dip their heads in ſheep's blood, which muſt be dried on; and ſo keep them in a clean box, and they will continue good for a quarter of a year.

Laſtly, as for compound paſtes, there are ſeveral ſorts; which ſee under Article PASTE; particularly a way of boiling beans, with which you may take great quantity of fiſh.

Take a new pot glazed on the inſide, and boil ſome beans in it, ſuppoſe a quarter of a peck, with river water, after you have ſteeped them for ſeven or eight hours in ſome water that was almoſt warm; when they are nearly half boiled, put in three or four ounces of honey, according to the beans, and two or three grains of muſk; let them boil a little, and uſe them in this manner:

Seek out a clean place, where there are no weeds, that the fiſh may ſee and take the beans at the bottom of the water. The place ſhould be two or three hundred paces from their holes; according to the bigneſs thereof; throw in your beans at five or ſix o'clock in the morning and evening, for the ſpace of ſeven or eight days, to the end you may draw the fiſh thither; and three days before that on which you deſign to fiſh, bait them with the beans before ordered, except that before you take them off the fire, you mix with them ſome of the beſt aloes reduced into powder, about the quantity of two beans; give it a boil, and then take it off.

The fiſh that eat it, will void all they have in their bodies, and for three days after will faſt, and then will come to ſeek for food, in the place where they found the bait, therefore you muſt be ready at two or three in the afternoon to ſpread your nets; and when you have done ſo, and thrown in eight or ten handfuls of beans, withdraw in order to return thither again pretty late in the evening for caſting the net. *See* ALLURE FISH TO BAIT, ANGLING, *and* LEDGER BAIT.

To BAIT, or BATE, (in FALCONRY) is when a hawk flutters with her wings, either from perch, or fiſt, as if it were ſtriving to get away.

BAITS *for intoxicating* FOWL.

There are ſeveral artificial baits for intoxicating of fowl, without tainting or hurting their fleſh, ſome of which are compoſed as followeth:

Take a peck, or leſſer quantity, of wheat, rye, barley, peas, or tares, to which put two or three handfuls of nux vomica, and boil them in running water until they are almoſt ready to burſt, then take it off the fire, and when they are cold ſtrew them upon the land, where you deſign to take the fowl, and ſuch as eat thereof will immediately be intoxicated, and lie as if dead, ſo that you may take them up at pleaſure, provided you ſtay not too long, for the dizzineſs will not laſt long upon them, therefore be near at hand.

As the greater ſort of land fowl are thus taken, ſo may you take ſmall birds, only with this alteration, that inſtead of wheat, peas, or the like grain, you uſe hemp-ſeed, rape-ſeed, or canary-ſeed, but above all, muſtard-ſeed.

If you approve not of nux vomica, you may boil the ſaid grains or ſeeds in the lees of wine, (the ſtronger the better) as you did in the running water, and apply them to uſe as aforeſaid, and it will work the ſame effect, being eſteemed more wholeſome, having nothing of that poiſonous nature in it; but in an hour or two the fumes will be perfectly wrought off.

Inſtead of boiling the ſaid grains or ſeeds in the lees, you may ſteep them therein; but then they will require a long time before they are ſufficiently ſwoln and fit for uſe.

Or inſtead of nux vomica, or lees of wine, you may infuſe the ſaid grains, or ſeeds, in the juice of hemlock, mix therein the ſeeds of henbane and poppy, or either of them. Theſe muſt ſtand two or three days infuſing, before they are fit to ſtrew on the ground for uſe.

Having ſhewed you how to take land fowl, I ſhall give ſome inſtructions for the taking of water fowl, eſpecially at ſuch times as they range up and down to ſeek their food on land; for effecting of which,

Take the ſeeds, leaves, and roots of the herb called bellenge, and having cleanſed them from all filth, put them into a veſſel of clean running water, and let them lie ſteeping therein twenty-four hours at leaſt; then boil them in the ſaid water until it is almoſt conſumed; take it off the fire, let it cool; then ſcatter it in ſuch places where the fowls have their haunts; they will greedily eat it ſo that they will become immediately intoxicated, and lie in a ſtupor as if dead; but you muſt watch them, for the fumes will ſoon wear off.

Some add to this decoction, the powder of brimſtone boiled therein, which is very effectual.

For deſtroying of crows, ravens, kites, and ſuch like miſchievous birds that are injurious to warrens and parks for the killing coneys and lambs, as alſo chickens; take the garbage or entrails of any fowl, or for want thereof, of a pig or rabbet; this garbage ſteep in the lees of wine with nux vomica, and when it is well infuſed therein, put in ſuch places where theſe birds uſe to reſort, which muſt be very early in the morning, or in the evening; and having a place prepared to lie concealed in near at hand, you may take thoſe that are intoxicated by the eating.

Or inſtead of the garbage, you may take little pieces of fleſh, and thruſt therein a ſmall piece of nux vomica, cloſing the place that it may not be diſcerned, and ſcatter the ſaid pieces up and down where their haunts are, and it will have the ſame effect.

Having ſhewed how to take fowl and birds by intoxicating baits, I will give you a receipt how to cover them, that they may be made tame.

Take a ſmall quantity of ſallad oil, more or leſs, according to the bigneſs of the fowl or bird, and drop it down its throat; then chafe its head with a little ſtrong white wine vinegar, and it will ſoon be perfectly well.

BALLS, in FARRIERY, are medicines compoſed of various ingredients, and adminiſtered for the relief of the ſeveral diſorders to which they are reſpectively adapted. The following are the moſt eſteemed receipts.

ALTERATIVE. Antimony finely levigated, ſulphur, nitre, and Æthiop's mineral, each three ounces; Caſtile ſoap,

ſoap, ten ounces; oil of juniper, three drachms; and ſyrup of honey, ſufficient to make the maſs, which divide into a dozen balls, rolling them in liquorice, or anniſeed powder.

Æthiop's mineral, four ounces; milk of brimſtone, prepared antimony, cream of tartar, and cinnabar of antimony, each five ounces; form theſe into a maſs with honey, and divide and roll them as before.

Mercurial Alterative. Prepared ſteel, ſulphur, and anniſeed powder, each three ounces; of levigated antimony, four ounces; Æthiop's mineral, ſix ounces; and a ſufficient quantity of honey. Divide the whole into nine balls.

Cordial Carminative. Mithridate, half an ounce; anniſeed powder, one ounce; grain of paradiſe and ginger, both in powder, of each, two drachms; oil of juniper and anniſeed, each a drachm; and ſyrup ſufficient to make the ball.

Of ſaffron and London philonium, each two drachms; mithridate and anniſeed in powder, each half an ounce; oil of anniſeed, one drachm; and ſyrup, if required, to make the ball.

Theſe balls are given with ſucceſs in cholicy diſorders.

Chewing. Aſſa fœtida, liver of antimony, juniper, bay-wood, and pellitory of Spain, beaten and incorporated into a maſs with verjuice. The method of adminiſtration is to wrap one of the balls in a linen cloth, and, having a ſtring faſtened to it, make the horſe chew it two or three hours at a time.

Theſe are chiefly uſed for a loſt appetite, a caſe very incidental to horſes.

Diuretic. Of yellow roſin and nitre, powdered, each four ounces; camphire in powder, half an ounce; oil of juniper, three drachms; and Caſtile or the beſt Briſtol ſoap, ſix ounces: mix it with a neceſſary quantity of ſyrup or honey, and roll it up as before. This quantity will make five balls.

Caſtile ſoap and Locatelli's balſam, each three ounces; powder of nitre and anniſeed, each two ounces; and balſam of Peru, ſix drachms; mix it together with the ſyrup of marſhmallows, and divide it into ſix balls.

One ounce of Venice turpentine, two drachms of unrectified oil of amber, the yolk of an egg, one ounce of nitre, half an ounce of juniper-berries, half an ounce of anniſeed, powdered, and a ſufficient quantity of ſyrup of marſhmallows.

Two drachms of the compound powder of gum-tragacanth, ten grains of opium, two drachms of nitre, half an ounce of Caſtile ſoap, two drachms of roſin, and thirty drops of the oil of juniper.

Theſe are very efficacious in caſes of the ſtranguary and greaſe.

Cordial Diuretic. Powder of camphire and ginger, each one ounce; nitre and roſin, each ſix ounces; anniſeed in powder, four ounces; Caſtile or pure white ſoap, ten ounces; oil of juniper, ſix drachms; and honey ſufficient to form the maſs. Divide it into balls of two ounces each.

This medicine is ſingularly adapted to every purpoſe in the cure of the molten-greaſe.

Fever. Snake-root, in powder, two drachms; mithridate, ſix drachms; anniſeed and compound contrayerva powders, each half an ounce; ſalt of hartſhorn, one drachm, and a proper quantity of ſyrup of ſaffron.

Venice treacle, ſix drachms; ſnake-root, ſaffron, London philonium, and compound powder of contrayerva, each two drachms; ſyrup, if neceſſary, to make the ball.

Theſe are adminiſtered with advantage in all feveriſh diſorders.

Jaundice. Turmeric, in powder, ſix ounces; Caſtile ſoap, eight ounces; ſoluble tartar, three ounces; India rhubarb, two ounces; long pepper, one ounce; ſaffron, half an ounce; and a ſufficient quantity of honey or ſyrup. Divide the whole into ten balls.

Caſtile ſoap, eight ounces; turmeric and filings of iron, each four ounces; anniſeed and elecampane, each two ounces; vitriolated tartar, one ounce and a half; oil of anniſeed, three drachms; and honey to form the maſs. This will make twelve balls.

Prepared antimony, cream of tartar, ſulphur, and Æthiop's mineral, of each three ounces; mix theſe well together in a mortar, and divide into twelve parts, giving one with the feed of corn, every other morning, ſprinkling the corn with water to prevent its waſte in the manger.

The jaundice is, by a proper application of theſe medicines, effectually cured.

Pectoral Cordial. Turkey figs, Spaniſh liquorice, anniſeed, and liquorice-powders, each four ounces; carraway ſeeds, elecampane, and aniſated balſam, each two ounces; ſaffron, powdered ginger, and oil of anniſeed, each ſix drachms; honey ſufficient to form the maſs. Divide it into twelve balls.

N. B. The figs and ſaffron are to be beaten to a paſte in a mortar, previous to their incorporation with the other articles; the Spaniſh liquorice is to be ſoftened over the fire, by boiling it in a ſmall quantity of ſpring water; and then the whole of the ingredients mixed together.

One of theſe, given every morning, is an excellent remedy for a cold.

Pectoral Detergent. Barbadoes tar, ſix ounces; Caſtile ſoap, anniſeed, and liquorice powders, each five ounces; gum-ammoniacum, three ounces; balſam of Tolu, one ounce; and honey, if required, to make a maſs; which divide into a dozen balls.

Purging. Grated ginger, one drachm; oil of cloves, thirty drops; ſuccotrine aloes, ten drachms; jalap and ſalt of tartar, each two drachms; and ſyrup of buckthorn to form the paſte.

A drachm and a half of Caſtile ſoap and jalap; ten drachms of Barbadoes aloes; diagrydium and ginger in powder, each one drachm; ſalt of tartar, half a drachm; and ſyrup of buckthorn ſufficient to make a ball.

Jalap, one drachm; India rhubarb, two drachms and a half; ginger, three ſcruples; cream of tartar, one drachm; ſuccotrine aloes, one ounce; oil of cloves and anniſeed, each twenty drops: and ſyrup of buckthorn ſufficient to form the ball.

Make a ball with ſyrup of roſes or buckthorn, ten drachms of ſuccotrine aloes, and of rhubarb, ginger, and jalap, each a drachm and a half.

Take ginger, one ſcruple and a half; Barbadoes aloes,

one ounce and a half; Castile soap and jalap, two drachms; form these into a ball, with forty drops of annifeed, twenty drops of cloves, and a sufficient quantity of buckthorn syrup.

RESTRINGENT. Take the powder of prepared chalk and gum-arabic, each half an ounce; ginger grated, one drachm and a half; mithridate, one ounce; and Armenian bole, half an ounce; make these into a ball with the syrup of diascordium.

CORDIAL RESTRINGENT. To the above articles add six drachms of diascordium, and forty drops of the oil of annifeed.

ANODYNE RESTRINGENT. Compound powder of gum-dragon and rhubarb, each half an ounce; columbo-root finely powdered, one drachm and a half; powdered ginger, one drachm; opium, fourteen grains; conserve of orange-peel, six drachms; and with syrup of diascordium form the ball.

STOMACH-RESTORATIVE. Powder of columbo-root and camomile-flowers, of each two drachms; oil of carraways, five-and-twenty drops; Venice treacle, half an ounce; and honey sufficient to make the ball.

BALOTADES, are the leaps of a horse between two pillars, or upon a straight line, made with justness of time, with the aids of the hands, and the calves of the legs; and that in such a manner, that when his fore feet are in the air, he shews nothing but the shoes of his hinder feet without yerking out.

Thus it is that the air, or manage of balotades differs from caprioles; the horse yerks, or strikes out his hinder legs with all his force, keeping them near and even. Balotades differ likewise from croupades in this, that in the former the horse shews his shoes when he lifts, or raises his croup, but in croupades he draws his hinder feet under him.

BALZANE. *See* WHITEFOOT.

BANDOG, a dog for the house, bull, bear, *&c.* which should be chosen with such like properties and qualities, that he has a large and very big body, well set, a great head, sharp fiery eyes, a wide black mouth, flat jaws, with a fang on either side, appearing lion-like faced; his teeth even on both his jaws and sharp, a great breast, big legs and feet; short tail; not too curst nor too gentle of disposition, nor lavish of his barking; no gadder; and lastly, that he hath a good shrill voice for the terror of thieves. *See* DOG. But for the choice of them when young, *see* SHEPHERD'S MASTIFF.

BANGLE EARS, an imperfection in a horse remedied in the following manner: take his ears, and place them so as you would have them stand, and then with two little boards, three fingers broad, having two long strings knit to them, bind the ears so fast in the places where they stand, that they cannot stir; then behind the head at the root of the ear, you will see a great deal of empty, wrinkled skin, which you must pull up with your finger and thumb, and clip away with a sharp pair of scissars close by the head; then with a needle and silk stitch the two outsides of the skin together, and with green ointment heal up the sore; which done, take away the splints that hold up the ears, and in a short time you will find them keep the same position you placed them in.

BANQUET, is that small part of the branch of the bridle that is under the eye, which being rounded like a small rod, gathers and joins the extremities of the bitt to the branch, and that in such manner, that the banquet is not seen, but covered by the cap, or that part of the bitt that is next the branch.

Banquet line, is an imaginary line drawn by the bitt-makers along the banquet in forging a bitt, and prolonged upwards and downwards to adjust the designed force or weakness of the branch, in order to make it stiff or easy: for the branch will be hard and strong, if the sevil hole is on the outside of the banquet line with respect to the neck; and the branch will be weak and easy if the sevil hole is on the inside of the line, taking the center from the neck. *See* BRANCH *and* SHOULDER.

BAITING, is when a hawk flutters with her wings, either from perch or fist, as if it were striving to get away.

BANDS OF A SADDLE; are two pieces of flat iron, and three fingers broad, nailed upon the bows of the saddle, one on each side, contrived to hold the bows in the situation that makes the form of the saddle.

To put a bow in the band, is to nail down the two ends of each band to each side of the bow.

Besides these two great bands, the fore bow has a small one, called the wither-band, and a crescent to keep up the wither-arch.

The hinder bow has likewise a small band to strengthen it.

To BAR A VEIN, or strike it, is an operation performed by a farrier upon the veins of a horse's legs, and other parts of his body, with intent to stop the course, and lessen the quantity of the malignant humours that prevail there.

When horses have got traverse mules, or kibed heels, and rat tails, or arrest in the hinder legs, the cure is to bar a vein.

In order to bar a vein, the farrier opens the skin above it, and after disengaging it, and tying it above and below, he strikes between the two ligatures.

BARB. A horse brought from *Barbary:* such horses are commonly of a slender light size, and very clean shaped, and small legs.

The *Spanish* and *English* horse, are much better bodied, and have larger legs than the *Barb*.

The *Barb* is little inferior to the *Arabian*, *Spanish*, or *Turkish* horse; but he is accounted by our modern breeders too slender and lady-like to breed on, and therefore in the north of *England*, they prefer the *Spanish* and *Turkish* horse before him.

He is so lazy and negligent in his walk, that he will stumble on carpet ground. His trot is like that of a cow, his gallop low, and with much ease to himself. But he is for the most part sinewy and nervous, excellent winded, and good for a course, if he be not overweighted.

The mountain-barbs are accounted the best, because they are the strongest and largest: they belong to the *Allarbes*, who value them themselves, as much as they are prized by any other nation, and therefore they will not part with them to any person except to the *Prince of the Band*, who can command them for his own use at any time, and at his pleasure.

But

But as for the other more ordinary sorts, they are to be met with pretty common in the hands of several of our nobility and gentry.

BARBARY FALCON, by some called the *Tartaret Falcon*, is a bird seldom found in any country, and is called a passenger, as well as a haggard.

It is sometimes smaller than the tercel-gentle, and plumbed red under the wings, strong armed, with long talons and stretchers.

The *Barbary* falcon is adventurously bold, and you may fly her with the haggard all *May* and *June*. They are hawks very slack in mewing at first; but when once they begin, they mew their feathers very fast.

They are called *Barbary* falcons, because they make their passage through that country, and *Tunis*, where they are more frequently taken than at any other place.

BARBED, implies bearded like a fish-hook.

BARBEL, is so called, on account of the barb or beard, that is under his nose or chaps, and is a leather-mouthed fish; and though he seldom breaks his hold when hooked, yet if he proves to be a large one, he often breaks both rod and line. The male is esteemed much better than the female.

They swim together in great shoals, and are at their worst in *April*, at which time they spawn, but come soon in season: the places where they chiefly resort, are such as are weedy and gravelly rising grounds, in which this fish is said to dig and rout with his nose, like a swine.

In the summer he frequents the strongest, swiftest currents of the water, as deep bridges, wears, &c. and is apt to settle himself amongst the piles, hollow places, and moss or weeds; and will remain there unmoveable; but in the winter he retires into deep waters, and helps the female to make a hole in the sands to hide her spawn in, to hinder its being devoured by other fish. This fish is of good taste and shape, especially his palate is curiously shaped: it is a very curious and cunning fish, for if his baits be not sweet, clean, well scoured, and kept in sweet moss, he will not bite; but well ordered, and curiously kept, he will bite with great eagerness.

The best bait for him is the spawn of a salmon, trout, or any other fish; and if you would have good sport with him, bait the places where you intend to fish with it a night or two before, or with large worms cut in pieces, and the earlier in the morning, or the later in the evening that you fish, the better it will be.

Also the lob worm is a very good bait: but you must be sure to cover the hook all over with the bait.

Green gentles are also a very good bait; and so likewise are bits of tough cheese laid in steep for twenty-four hours in clarified honey; with which if you bait the ground, you can hardly miss taking them, if there be any.

Graves, which are the sediment of tallow melted for the making of candles, cut into pieces, are an excellent ground bait for barbel, gudgeons, and many other fish, if thrown in the night before you angle.

Your rod and line must be both long and strong, with a running plummet on the line, and let a little bit of lead be placed a foot or more above the hook, to keep the bullet from falling on it; so the worm will be at the bottom where they always bite, and when the fish takes the bait, your plummet will lie, and not choak him; and by the bending of the rod you may know when he bites, as also with your hand you will feel him make a strong snatch, then strike, and you will rarely fail if you play him well and leave him; but in short, if you manage him not dexterously he will break your line.

Fishing for barbel is at best but a dull recreation. They are a sullen fish, and bite but slowly. The angler drops in his bait, the bullet at the bottom of the line fixes it to one spot of the river. Tired with waiting for a bite, he generally lays down his rod, and exercising the patience of a setting dog, waits till he sees the top of his rod move; then begins a struggle between him and the fish, which he calls his sport; and that being over, he lands his prize, fresh baits his hook, and lays in for another.

The best time for fishing is about nine in the morning, and the properest time for it is the latter end of *May*, *June*, *July*, and the beginning of *August*.

BARBS, or BARBLES, are knots of superfluous flesh, that grow upon the channels of a horse's mouth: that is, the interval that separates the bars, and lies under the tongue.

Though it seems to be a mere trifle, these however will hinder a horse from drinking as usual; and if he does not drink freely, he eats the less, and languishes from day to day, perhaps, without any one's taking notice of it.

They are easily seen by drawing the tongue aside. Black cattle are subject to this complaint as well as horses. The cure is—Take allum and honey, of each one ounce; bay-salt, a handful; and the juice of mint, a quarter of a pint: dissolve these in a quart of clear water, and with it wash the roots of the barbs till they heal.

There are some who advise burning them off; but, in consequence of their situation, it is neither so easy to be done, nor safe, lest the tongue-string or small veins be thereby rendered useless, and consequently the horse defective in his feeding. Others approve of cutting them as close as possible, and washing the wound frequently with a spunge dipped in brandy, or spirits of wine or salt.

BARKING, this fox-hunters call the noise made by a fox in the time of clicketting.

BARDELLE, is a saddle made in the form of a great saddle, but only of cloth stuffed with straw, and tied tight down, without either leather, wood, or iron; they are not used in *France*, but in *Italy* they trot their colts with such saddles, and those who ride them, are called *Cavalcadours*, or *Scozone*.

BARNACLES, horse twitchers, or brakes; these are things which farriers use to put upon horses' noses, when they will not stand quietly to be shod, blooded, or dressed, if any sore; some call them pinchers, but then they are so termed to distinguish them from the foregoing, since these have handles, whereas the others are bound to the nose with a lace or cord. Indeed there is a third sort, though differing very little from the

the first. This sort is held together at the top by a ring inclosing the buttons, first having the top buttons held by an iron pin rivetted through them, but the meanest sort of all is that which we call roller barnacles, or wood twitchers, being only two rollers of wood bound together, with the horse's nose between them, and for want of better they serve instead of iron branches.

BARS OF A HORSE'S MOUTH, are the ridge, or highest parts of that place of the gum that never bears any teeth, and is situated between the grinders, and the tushes, on each side of the mouth: so that that part of the gum which lies under, and at the side of the bars, retains the name of gum.

The bars are that part of the mouth upon which the bitt should rest and have its appui, for though a single cannon bears upon the tongue, the bars are so sensible, and tender, that they feel the effect of it even through the thickness of the tongue.

These bars should be sharp-ridged, and lean; since all the subjection a horse suffers, proceeds from those parts; for if they have not these qualities, they will be very little or not at all sensible, so that the horse can never have a good mouth: for if they be flat, round, and insensible, the bitt will not work its effect, and consequently such a horse can be no better governed by the bridle than if one took hold of his tail.

A horse is said to fall foul of the bar, when in the stable he entangles his legs upon the partition bar, that is put to separate two horses, and keep them from falling upon one another.

Barbs and vigorous ticklish horses are apt to fall foul of the bar, and when they do they struggle and fling, and wound themselves in the hocks, and thighs, and the legs, and are in danger of laming themselves, unless you speedily cut the cord that keeps up the end of the bar, and so suffer that end to fall to the ground.

BAT FOWLING, is a night exercise, and takes all sorts of birds, both great and small, that roost not only on the ground, but on shrubs, bushes, hawthorn trees, and the like places, and is therefore proper for woody, rough, and bushy places.

The depth of winter is the best season for this sport, and the darker the night, and the colder the weather, so much the better.

As to the manner of bat-fowling, it may be performed either with nets, or without, just as you please.

If it be without nets, and supposing the company to be twelve or fifteen, one third part of the number should carry poles, to which should be bound at the top little bundles of dry wisps of hay, or straw, (or instead of them, pieces of links, or hurds dipt in pitch, rosin, or the like, that will blaze) another third part are to attend upon those fires with long poles, rough and bushy at the upper ends, to knock down the birds that fly about the lights: and the other third part must have long poles to beat the bushes, and other places, to cause the birds to fly about the lights, which they will do, being as it were amazed, and will not part from them, so that they may be knocked down very easily; and thus you may find good diversion for dark nights.

One of the company should also carry a candle and lanthorn, that if all the lights should happen to be extinguished, they may be lighted again; but you must be sure to observe the greatest silence possible, especially till the lights are kindled.

BAT FOWLING, with nets, is performed as follows; let two or three persons carry lanthorns and lighted candles, extended in one hand (such as are used in Low Belling, which see) and in the other hand small nets, something like a racket, but less, which must be fixed at the end of a long pole, to beat down the birds as they sit at roost; they being surprized at the great blazing light, will sit still till they are knocked down.

A cross-bow is very useful in this sport, to shoot them as they sit.

BATHING A FALCON, is when weaned from her ramaged fooleries, being also hired, rewarded, and thoroughly reclaimed, she is offered some water to bathe herself in, in a bason where she may stand up to her thighs; for doing this you must chuse a temperate clear day. When you have thus hired the hawk, and rewarded her with warm meat, carry her in the morning to some bank, and there hold her in the sun, till she has endued her gorge, taking off her hood that she may prune and pick herself: having so done, hood her again, set her near the bason, and take off her hood; let her bathe again, as long as she pleases; after she has done, take her up, let her pick herself as before, and then feed her; but if she does not like to bathe herself in the bason, then shew her some small river or brook for that purpose.

By the use of this bathing, she will gain strength and a sharp appetite, and so grow bold; but give her no washed meat on those days that she bathes.

BATTLE ROYAL, (in cock-fighting) a fight between three, five, or seven cocks, all engaged together, so that the cock which stands longest gets the day. *See* COCKING.

BAWK, IN ANGLING, is a knot in a hair or link of a line, occasioned often by the twisting of an eel, and if not rectified in time the line will break in that place.

BAWREL, is a hawk, for largeness and shape, somewhat like a lannier, but hath a longer body and tail; she is generally a fast geer aforehead, and a good field hawk, and in inclosures will kill a pheasant, but being a long-winded hawk is unfit for coverts.

To BAY, to bark as a dog does; among huntsmen, deer are said to bay, when after they are hard run they turn head against the hounds.

BAY COLOUR. A bay horse is what we commonly call red, inclining to chesnut.

This colour varies several ways: it is a dark bay, or light bay, according as it is more or less deep: and we have likewise dapple bays.

All bay horses have black manes, which distinguishes them from the sorrel, that have red or white manes.

BAYARD, a bay horse.

BEAGLES, hunting dogs, of which there are several sorts, *viz.* the southern beagle, which is something less than the deep mouthed hound, and something thicker and shorter.

The

The fleet northern, or cat beagle, which is ſmaller, and of a finer ſhape than the ſouthern beagle, and is a hard runner.

Theſe two beagles by croſſing the ſtrains, breed an excellent ſort, which are great killers.

There is alſo a very ſmall ſort of beagles, not bigger than a lady's lap-dog, which make pretty diverſion in hunting the coney; and alſo the ſmall hare, if the weather be dry; but by reaſon of the ſmallneſs, this ſort is not ſerviceable.

BEAK, the nib, or bill, of a bird; in falconry, the upper part of a hawk's bill that is crooked.

BEAKING (in cock-fighting) the fighting of thoſe birds with their bills, or holding with the bill, and ſtriking with the heels.

BEAM, (in the head of a deer) is that part which bears the antlers, royals, and tops, and the little ſtreaks therein called circles.

BEAM FEATHERS, are the long feathers of a hawk's wing.

Of the Nature and Properties of a BEAR, *and after what Manner hunted.*

There are two ſorts of bears, a greater and a leſſer; the laſt is more apt to climb trees than the other.

Bears are bred in many countries; in the *Helvetian Alpine* region, they are ſo ſtrong and courageous, that they can tear to pieces both oxen and horſes, for which cauſe the inhabitants are ſtudiouſly laborious in the taking them.

A bear is of a moſt venerous and luſtful diſpoſition, for day and night the females with moſt ardent inflaming deſires do provoke the males to copulation, and for this cauſe at that time they are moſt fierce and angry.

The time of their copulation is in the beginning of winter, and the manner of it is like to a man's; the male moveth himſelf upon the belly of the female, which lieth flat on her back, and they embrace one another with their fore feet; they remain a very long time in that act.

They are naturally very cruel and miſchievous unto all tame beaſts, and very ſtrong in all parts of their body but their head, where a ſmall blow will kill them.

They go to mate in the beginning of the winter, ſome ſooner, ſome later, according to their reſt and feeding; and their heat laſteth not more than fifteen days.

When the ſhe-bear perceiveth herſelf with whelp, ſhe withdraws herſelf into ſome cave or hollow rock, and there remains till ſhe brings forth her whelps.

When they enter into their den, they convey themſelves backwards, that ſo they may put out their footſteps from the ſight of the hunters.

The nature of all of them is to avoid cold, and therefore in the winter time they hide themſelves, chuſing rather to ſuffer famine than cold, lying for three or four months together, and never ſee the light; whereby, in a manner, their guts are clung together; and coming forth, are ſo dazzled by long darkneſs, being in the light again, that they ſtagger and reel to and fro: and then by a ſecret inſtinct they remedy the ſtraitneſs of their guts, by eating an herb, called arum; in Engliſh, Wake-robin, or calves-foot; by acidity whereof their guts are enlarged: and being recovered, they remain more fierce and cruel than at other times, while their young are with them.

They are whelped moſt commonly in *March*; ſometimes two, and not above five in number: the moſt part of them are dead one whole day after they are whelped, but the ſhe-bear ſo licks them and warms them with her breath, and hugs them in her boſom, that ſhe quickly revives them.

As ſoon as the dam perceiveth her cubs to grow ſtrong, ſhe ſuckleth them no longer, by reaſon of their curſtneſs; as they will bite her if they cannot get ſuck enough.

After this ſhe preyeth abroad upon any thing ſhe can meet with, which ſhe eats and caſts up to her young ones; and ſo feeds them till they can prey themſelves. They will climb a tree for the fruit.

If they be hunted they will follow a man, but not run at him unleſs they are wounded.

They are very ſtrong in their paws; they will ſo hug a man, or dog, till they have broke his back, or ſqueezed the guts out of his belly: with a ſingle paw they will pull a luſty dog to his tearing and devouring mouth.

They will bite ſo ſeverely, that they will bite a man's head to the brains: as for an arm or leg, they will cruſh it, as a dog does a ſlender bone of mutton.

When they are hunted, they are ſo heavy that they make no ſpeed, and are always in ſight of the dogs: they ſtand not at bay as the boar, but fly wallowing; but if the hounds ſtick in, they will fight valiantly in their own defence; ſometimes they will ſtand up ſtraight on the hinder feet, which you may take as a ſign of fear and cowardice, for they fight ſtouteſt and ſtrongeſt on all four.

They have an excellent ſcent, and will ſmell farther than any other beaſt, except a boar.

They may be hunted with hounds, maſtiffs, or greyhounds; and they are chaſed and killed with bows, boar-ſpears, darts, and ſwords: ſo are they alſo taken in ſnares, caves, pits, and with other engines.

They naturally abide in great mountains; but when it ſnows, or in hard weather, then they deſcend into vallies and foreſts for proviſions.

They caſt their leſſes ſometimes in round croteys, and ſometimes flat, like a bullock, according to their feeding.

They go ſometimes a gallop, and at other times an amble: but they go moſt at eaſe when they wallow.

When they come from their feeding, they beat commonly the highways and beaten paths, and wherefoever they go out of the highways, there you may be ſure they are gone to their dens: for they uſe no doubling nor ſubtilties.

They tumble and wallow in water and mire, as ſwine, and they feed like a dog: ſome ſay their fleſh is very good food.

The beſt way of finding the bear is with a lean hound; and yet he who is without one, may trail after

after a bear as we do after a buck or roe, and you may lodge and hunt them as you do a buck.

For the more speedy execution, mingle mastiffs among the hounds; for they will pinch the bear, and so provoke her to anger, until at last they bring her to the bay, or else drive her out of the plain into the covert, not letting her be at rest till she fights in her own defence.

BEARD, IN ANGLING, is that part of the hook which is a little above the point, and projecting out, to hinder the fish from slipping off the hook.

BEARD, OR UNDER BEARD, OR CHUCK OF A HORSE, is that part underneath the lower mandible on the outside, and above the chin, which bears the curb of the bridle. It is also called the chuck. *See* CURB *and* GENETTE.

BEARD OF A HORSE, should neither be too high raised, nor too flat, so that the curb may rest in its right place.

It should have but little flesh upon it, and be almost nothing but skin and bone, without any kind of chops, hardness or swelling.

High BEARING COCK, one larger than the cock he fights with.

BEASTS OF THE CHASE, are five, the buck, the doe, the fox, the roe, and the martin.

BEASTS OF THE FOREST, are the hart, the hind, the hare, the boar, and the wolf.

BEASTS AND FOWLS OF THE WARREN, are the hare, the coney, the pheasant, and the partridge.

BEARING CLAWS: the foremost toes of a cock are so called by cock-fighters, which, if they be hurt or gravelled, he cannot fight.

To BEAT, (with Hunters) a term used of a stag which runs first one way and then another, who is then said to beat up and down: also the noise made by conies in rutting time, which is called beating, or tapping.

BEAT UPON THE HAND. *See* CHACK.

BEAT, to beat the dust or powder, is said of a horse that at each time or motion, does not take in ground or way enough with his fore-legs.

A horse beats the dust at *terra a terra*, when he does not embrace, or take in ground enough with his shoulders, and makes all his times and motions too short, as if he made them in one place.

He beats the dust at curvets, when he does them too precipitately, and too low.

He beats upon a walk, when he walks too short, and makes but little way, whether in straight lines, rounds, or passagings.

BEATING, *among Sportsmen*, is the noise made by hares in rutting-time. *See* TERMS.

BEATING *in the Flanks*, a distemper to which black-cattle are subject, and is an indication of great inflammation in the bowels.

The treatment should be the same as in fevers, and the diet cool and relaxing.

BEAVER; this animal differs not much from the otter, excepting his tail, being of colour somewhat yellow, interspersed with ash. There are great numbers of them in *Virginia*, *New-England*, *New-York*, and those parts: and the river *Tiwy* in *Wales*, was once famous for this animal.

They are an amphibious animal like the otter, living both on land and in water; both fresh and salt; keeping in the last in the day, and on the first in the night: but without water they cannot live; for they participate much of the nature of fish, which may be gathered from their tails and legs.

They are much about the bigness of mungrel curs; their fore-feet are like those of a dog, and their hinder like those of a goose, having a web to assist them in swimming: they have a short head, a flat hairy snout, small round ears, very long teeth; and the under teeth standing out beyond their lips, about the breadth of three fingers, and the upper about that of half a finger, being very broad, crooked, strong, and sharp, set deep in their mouths; being their only weapon to defend themselves against other animals, and take fish, as it were, upon hooks: and with these they will soon cut asunder a tree as thick as a man's thigh: the tail is without hair, and covered over with a skin like the scales of a fish, about half a foot long, and six fingers broad.

BEAVER-HUNTING.

The common method of hunting them is thus: their caves, or places of abode, being found, in which are several chambers, or places of retreat, by the water-side, built one over another for them to ascend or descend, according as the water rises or falls; and the building of them is admirable to behold; being made with sticks, and plaistered with dirt, in form of a bee-hive; but for largeness, as big as a moderate sized oven.

These caves being found, you must make a breach therein, and put a little dog in it; which when the beaver perceives, he instantly makes to the end of his caves, and there defends himself with his teeth till all his building is razed or demolished, and he is exposed to his enemies, who kill him with proper instruments. The dogs used for killing them are such as for the otter.

The beaver cannot dive long under water, but must put up his head for breath; which being seen by those that are hunting them, they kill them with gun-shot, or spears, such as are used for killing the otter.

They are taken for their skins and cods, which are of a high price: those skins are best that are blackest.

One who dwelt in *Virginia*, gives the following account of them. That they dwell, or inhabit, in low, moorish, boggy places, through which runs a rill of water; and this rill, at some convenient place, they stop by making a dam cross it; and by this dam (which is made artificially with earth and sticks) they make their caves; and to which belong commonly two or three hundred beavers, resembling as it were a town.

If this dam is at any time broken by any to take them, or otherwise becomes decayed, (the water being their chief refuge) they immediately repair it.

And by observation, they have a chief over them, who takes care thereof; the rest are very observant to him when he has assembled them together, which he does

does by flapping his tail in the water, and so making a noise.

BED, (with Sportsmen) is said when a roe is meant to lodge in any particular place.

BEDDING, in respect of horses and other cattle, denotes straw or litter spread under them to lie on.

BED AND BEDDING, IN ANGLING, are said of hairs where they are twisted kindly, so that the link is equally round in every part. Also the substance of the body of an artificial fly. Eels are said to bed, when they get into the sands or mud in large quantities.

BED OF SNAKES; a name hunters give to a knot of young ones; and a roe is said to bed when she lodges in a particular place.

BEE. It is observed generally after mild winters, that bees are very prolifick, and that the swarms are in general large. Of all the subjects that occupy the rural œconomist, there are none so profitable as the bee, or that pay so large interest; for if you give the swarm a hive, which cost six-pence, and two-pennyworth of honey to attach them to it, it is more than probable, that in the space of three months, that hive may be worth from five to fifteen shillings.

The bee seems much neglected in this country, for while in many parts of England cottagers will take from six to eighteen or twenty-four hives in a year, and leave as many for store; here it is rare to see a cottager possessed of five hives at once.

It is asserted of some persons fond and successful in the care of bees, that if we universally carried that point to the high degree of produce we might, we should need little importation of sugar; and that one-fourth of the candles we burn might be made of wax. It is said, that in many provinces of France, individuals possess from twenty to one hundred hives, and some from four to five hundred.

BELLING, } (with hunters) the noise made by
BELLOWING, } a hart in rutting-time.

BELLY; a thick-bellied, a well-bodied, a well thick-flanked horse; that is, a horse that has large, long, and well made ribs; or such as are neither too narrow nor too flat: thence they say,

Such a horse has no body, he is thin-flanked; that is, his ribs are too narrow, or short, and the flank turns up: which makes his body look flankless, like a grey-hound.

A horse of this nature is commonly called in *French* an *estrac;* which generally speaking, is a fine sort of tender horses, not very fit for travelling or fatigue, unless they feed very heartily.

We reject all coach-horses that are not well-bodied, all that are narrow or thin gutted, and seem to have the hide or skin of their flanks stitched upon their ribs; but a hunter is not the worse liked for being light bellied: nay, on the contrary, he is preferred to a thicker flanked horse, provided he is well winded, of good mettle, light, and a great eater.

BELLY-FRETTING, } is a grievous pain in the
BELLY-ACHE, } belly of an horse, besides the cholic, proceeding either from eating of green pulse, which grows on the ground, or raw, undried peas, beans, or oats; or else when sharp fretting humours, inflammations, or abundance of gross matter, is got between the great gut and the panicle: the signs of which pain, is much wallowing, great groaning, &c.

The cure is to rake the horse, by first anointing your hand with sallad oil, and thrusting it into his fundament, and pulling out as much dung as can be reached; and afterwards to give him a glister of water and salt mixed together; and then give him to drink the powder of wormwood and centaury, brewed in a quart of malmsey.

BELLY-ACHE IN SWINE; to cure this disorder, give, in the morning, the following dose.

To one ounce of long-pepper and a handful of fennel-seed, add one ounce of fenugreek-roots and two ounces of honey; boil these in a pint of white wine and a quart of stale beer. Or,

Take mayweed a handful, ground ginger an ounce, anniseed and fennel-seed an equal quantity, and of treacle an ounce; boil the whole in a quart of beer.

BELT, a frequent disease in sheep. To remedy it, cut away the tags, and open the sore, cast fine sifted mould on it, and cover that with a plaister of tar, oil of turpentine, and goose grease.

BEVY, OF ROE-BUCKS, (with Foresters) a herd or company of those beasts.

BEVY, OF QUAILS, (with Fowlers) is a term used for a brood, or flock of young quails.

BEWITS, (in Falconry) pieces of leather, to which a hawk's bells are fastened, and buttoned to his legs.

BEZANTLER, (among Sportsmen) that branch of a deer's horn next below the brow-antler.

BILLITTING, (among Hunters) the ordure, or dung of a fox.

BINDING, (in Falconry) a term used in tiring; or when a hawk seizes his prey.

BIRD. Birds are either land-fowl or water-fowl. Those that are brought up in cages, require that some care should be taken of them when they happen to be hurt, or fall sick; for which the following remedies may be used, as there is occasion.

For those that are hurt, gently pull off the feathers from the place, or you may cut the moff; and spreading a villa magna plaister upon soft leather, apply it thereto.

To bring birds to an appetite, take rhubarb, agaric, aloes, saffron, cinnamon, annise, and sugar-candy, of each a dram; beat all these ingredients together, and reduce them into a powder; and give them as much of this powder as will lie upon a silver penny, in a pellet, at night: and this will make them cast much.

To purge birds, and bring them to a stomach, give them two pills of the old liquid conserve of province roses, of about the bigness of a small pea.

We proceed next to the ways how to take birds that are at large: there is a way of intoxicating, and catching them with your hands; in order to which, take some lees of wine, and hemlock juice, and having tempered them together, let some wheat, for the space of one night, be steeped therein; then throwing the same into a place where the birds resort to feed, when they have eaten thereof, they will drop down.

There are various ways of taking birds; one of which

which is in the night, with a low-bell, hand-net, and light; a ſport uſed in plain, and champaign countries; alſo in ſtubble fields, eſpecially that of wheat, from the middle of *October* to the end of *March;* and that after this manner.

At night, when the air is mild, and the moon does not ſhine, take your low-bell, which muſt be of a deep and hollow ſound, of ſuch a reaſonable ſize that a man may carry it conveniently with one hand; and which does toll juſt as a ſheep's while it feeds: you muſt alſo have a box, much like a large lanthorn, and about a foot and a half ſquare, big enough for two or three great lights to be ſet in it; and let the box be lined with tin, and one ſide be open, to caſt forth the light, fix this box to your breaſt to carry before you, and the light will carry a great diſtance before you, very broad, whereby you may ſee any thing that is on the ground, within the compaſs of the light, and conſequently the birds that rooſt on the ground.

As for the taking them, have two men with you, one on each ſide; but a little after you, to the end they may not be within the reflection of the light that the lanthorn or box caſts forth; and each of them muſt be provided with a hand net of about three or four feet ſquare, which muſt be fixt to a long ſtick, to carry in their hands; ſo that when either of them ſees any bird on his ſide, he may lay his net over them, and ſo take them up, making as little noiſe as poſſible; and they muſt not be over haſty in running to take them up; but let him that carries the light and low-bell, be the foremoſt, for fear of raiſing others, which their coming into the limits of the light may occaſion; for all is dark, except where the light caſts its reflection.

It is to be obſerved, that the ſound of the low-bell cauſes the birds to lie cloſe and not dare to ſtir, while you put your nets over them: and the light is ſo terrible to them, that it amazes them; and for caution you muſt uſe all imaginable ſilence, for fear of raiſing them.

If you would practiſe this ſport by yourſelf, then carry the low-bell in one hand, as before directed, and in the other a hand-net, about two feet broad, and three feet long, with an handle to it: which is to lay upon them as you ſpy them. Some like this way better than the former.

If you take a companion, you may have a fowling-piece, to the end that if you eſpy a hare, the better way is to ſhoot it: for it is hazardous to take it with a net.

Some there are, who inſtead of fixing the light to their breaſt as aforeſaid, tie the low-bell to their girdle, by a ſtring which hangs to their knees, and their motions cauſe the bell to ſtrike; and then they carry the light in their hand, extending the arm before them; but the lanthorn, or box, muſt not be ſo large as that which you fix to your breaſt.

Another way of taking ſmall birds, is by bat-fowling, the ſame being likewiſe a night exercise; by which you may take all ſorts of birds, both great and ſmall, that rooſt not only on the ground, but on ſhrubs, buſhes, hawthorn trees, and the like places.

The depth of winter is the beſt ſeaſon for this ſport; and the darker the night, and the colder the weather, ſo much the better. *See* BAT-FOWLING.

Some take great and ſmall fowl by night in champaign countries, with a long tramel-night, which is much like the net uſed for the low-bell, both for ſhape, bigneſs, and meſh: for which ſee Plate XVI. This net is to be ſpread upon the ground, and let the nether or further end thereof, being plumbed with ſeveral plummets of lead, lie cloſe on the ground; and then bearing up the former end by the ſtrength of men, at the two foremoſt ends only, trail it along the ground; not ſuffering the end which is borne up to come near it, by at leaſt a yard.

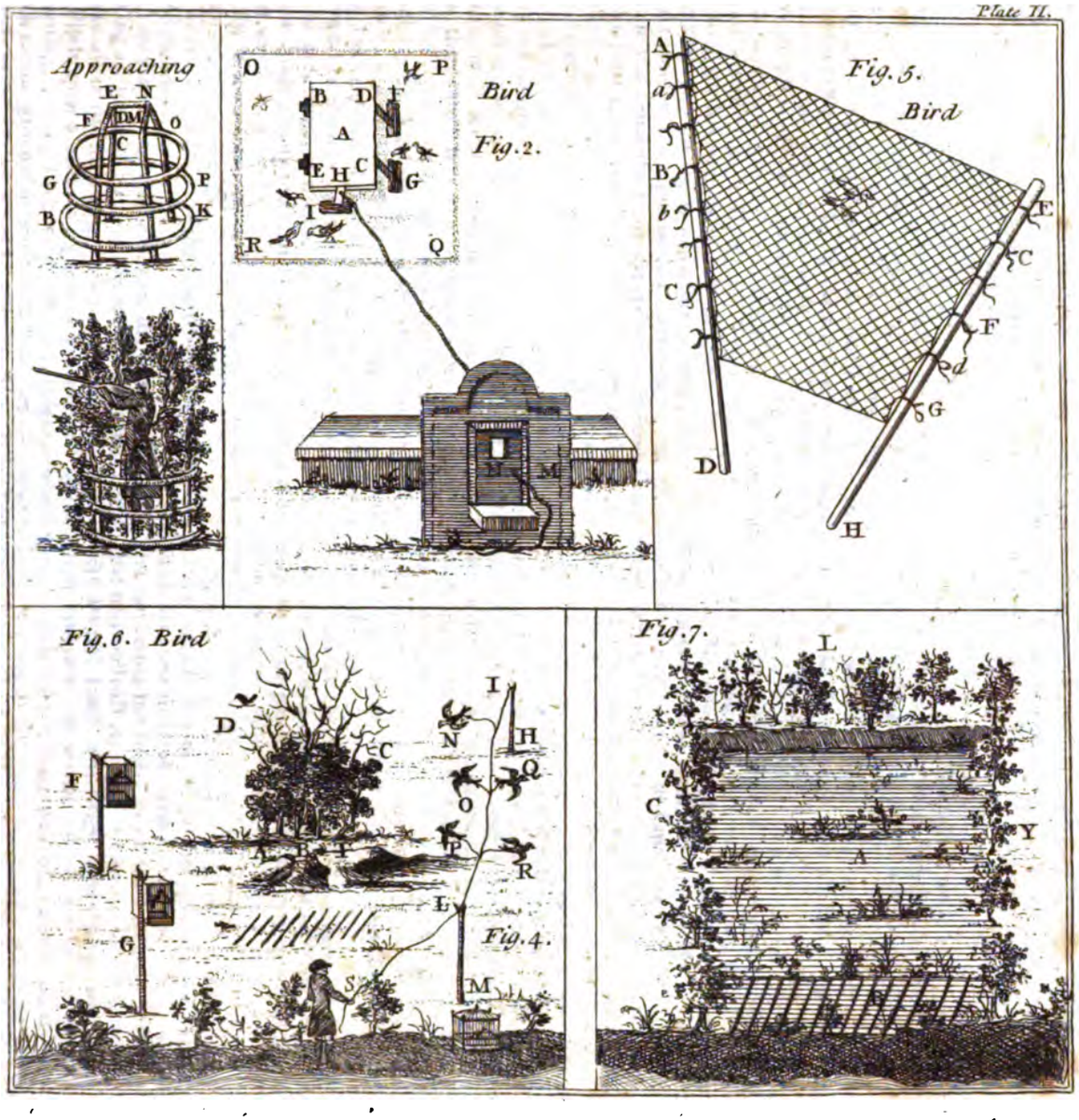
Then at each end of the net muſt be carried great blazing lights of fire, ſuch as have been ſpoken of before; and by the lights men muſt, with long poles, raiſe up the birds as they go, and as they riſe under the nets, to take them: and you may in this manner go over a whole corn-field or other champaign ground, which will yield both pleaſure and profit.

There are, and may be, more ways than one for taking ſmall birds, when the ground is covered with ſnow; to inſtance in the following one; ſee Plate II. Fig. 2. pitch upon a place in your yard or garden, from which you may ſee the birds about twenty or thirty paces from ſome window or door, from whence the birds cannot ſee you, to the end they may not be frightened: clear this place of the ſnow, to the breadth of ſix or ſeven feet, and of the ſame length, ſo as to form a ſquare, as repreſented by the lines O, P, Q, R: place a wooden table, or door in the middle, as at A, to which you muſt have faſtened before at the ſides, B, C, D, E, ſome ſmall pieces of pipe-ſtaves, about ſix inches long, and an inch broad: but before you nail them on, make a hole, exceeding the thickneſs of the nail, to the end it may eaſily turn about each nail.

You are, under the four ends which are not nailed, to place four pieces of tile, or ſlate, to hinder them from penetrating into the ground, as you may ſee at F and G, in ſuch a manner that the table may not be fixed, but with the leaſt jog fall down.

You muſt make a ſmall notch, or little ſtay, in the end of the table, at the place marked H, in order to put into it the end ſtaff marked I, which ſhould be ſeven inches long, and one broad, and the other end ought to reſt upon a piece of tile or ſlate; ſo that the door, or table, hanging thereon, would be ready to fall towards the horſe, were it not for that piece of wood which is bored towards the middle, in order to put in and faſten the end of a ſmall cord, whoſe other end is conveyed to the window or door M, N, deſigned for this purpoſe.

This done, put ſome ſtraw upon the table to cover it, with ſome corn underneath it, and a little about it: now, ſo ſoon as the hungry little birds ſee the earth free from ſnow, and covered with ſtraw, they will fly thither, and when they have eat up the corn about the table, they will alſo proceed to feed upon that under it: you muſt from time to time peep through ſome hole in the door, or leave it a little open, and when you find the birds have got under the machine, pull the cord M, which will draw out the ſtick I, and ſo the table will fall


Approaching
Bird
Fig. 2.
Fig. 5.
Bird
Fig. 6. Bird
Fig. 4.
Fig. 7.

fall upon the birds, which you muſt preſently ſeize, and ſet your machine as before.

If the table does not fall readily enough, but ſo that the birds may have time to eſcape, and if it be not heavy enough of itſelf, you muſt lay earth, or ſome ſuch thing, upon it, that may the leaſt frighten the birds from coming near it.

Small birds may be taken in the night-time, with nets and ſieves: they retire in the winter time into coppices, hedges, and buſhes, by reaſon of ſevere cold and winds which incommode them. The net made uſe of for this purpoſe, is that which the *French* call a carrelet, repreſented in Plate II. Fig. 5.

Take two poles, A B C D, E F G H, let them be ſtraight, and light, ten or twelve feet long; to the end the net may be lifted up high enough wherewith to take the birds: tie the net to theſe two poles, beginning with the two corners, at the two ſmall ends A, E, tie the other two corners, C, G, as far as you can toward the two thick ends of the poles, D, H, faſten pack-threads all along at both the ſides, or two or three places; to each you may ſee marked by the capital and ſmall letters, a B, b C, F, d. There muſt be three or four perſons employed, one to carry the net, another to carry the light, and a third a long pole.

As ſoon in the night as you have got to the place where you think the birds are retired, and have found a good buſh, or kind of thicket, the net muſt be unfolded, and pitched where it ſhould be, and exactly to the height of the buſh: and it muſt be ſo ordered, that the net be placed between the wind and the birds; for it is the nature of all birds to rooſt with their breaſts againſt the wind. The other perſon with the lighted torch, muſt ſtand behind the middle of the net, and the third muſt beat the buſhes on the other ſide of the hedge, and drive the birds towards the light, he muſt lay on ſtoutly with his pole; the birds, ſuppoſing it to be day, will make towards the light, and ſo falling into the net, become a prey to you: when you have taken them out, you may pitch your net again.

In great timber woods, under which holly buſhes grow, birds uſually rooſt; and there much game is to be met with.

By this way, twenty or thirty dozen of birds, have been taken in one night.

This ſport is ſo much the better when the weather is cold and dark.

You may divert yourſelf from *September* to *April*, in taking all ſorts of birds in the middle of a field; and make uſe of the following device:

Pitch upon a place in a piece of ground early in the morning, remote from tall trees and hedges; where ſtick in the ground three or four branches of coppice wood, as A, B, T, Plate II. Fig. 6, five or ſix feet high, and ſo intermingle the tops of them, that they may keep cloſe and firm like a hedge: take two or three buſhes of black-thorn, as C, D, let them be as thick and cloſe as may be, and place them on the top of the coppice branches, where you muſt make them faſt: provide yourſelf with four or five dozen of ſmall lime twigs, nine or ten inches long, and as ſlender as can be got: glew them all along, within two inches of the thick end, which muſt be cleft with a knife: place them near, and upon the hedge, and let them be kept up by placing the cleft end ſlightly upon the point of the thorns, and let the middle be borne up a little with ſome other higher thorn, ſo that they may ſtand ſloping, without touching one another; ranging them all in ſuch a manner, that a bird cannot light upon the hedge without being entangled. *See* Plate II. Fig. 6.

You ſhould always have a bird of the ſame ſort you deſign to catch, and bring him up in a ſmall cage that is light and portable: theſe cages muſt be placed upon ſmall forked ſticks, as F, G, ten inches from the ground, ſtuck on one ſide the artificial hedge, or buſh, at a fathom's diſtance; after which retire thirty paces towards S, where you are to ſtick two or three leaved branches in the ground, which may ſerve for a lodge, or ſtand, to hide yourſelf.

When you have taken three or four birds of any ſort, you muſt make uſe of a device repreſented by Fig. 4: take a ſmall ſtick, I, H, two feet long, and fix it quite upright in the ground, at the diſtance of about two fathoms from the tree; faſten a ſmall pack-thread to the end I, which muſt be on a ſmall forked ſtick, L M, two feet high, and fix it in the ground, four fathoms diſtant from the other, I H: let the end of it be conveyed to your ſtand, then tie the birds you have taken, by the legs, to that packthread, between the ſtick I H, and the forked one L M: the letters N, O, P, Q, R, repreſent them to you: the thread made uſe of for this purpoſe, muſt be two feet long, and ſo ſlack, that the bird may ſtand upon the ground. This done, retire to your ſtand; and when you ſee ſome birds fly, pull your packthread S, and the birds that are tied will fly, by which means you may take a great many birds; for thoſe that hover in the air perceiving the others fly, will imagine they feed there, which will bring them down, and they will light upon the lime twigs; from which you may take them without any difficulty.

As ſoon as the ſmall birds have done with their neſts, which will be about the end of *July*, you may take them in great numbers, when they go to drink along rivulets, about ſprings, ditches, and pools, in the fields and woods. *See* Plate II. Fig. 7.

Suppoſe the place marked with the letter A, ſhould be the middle of a ditch, or pool full of water, where the birds come to drink, make choice of a bank where the ſun comes but little, as at B: remove every thing that may obſtruct the birds to come eaſily at the water; take ſeveral ſmall lime-twigs, a foot long, which you muſt lime over, to within two inches of the thickeſt end, which muſt be ſharp-pointed, in order to fix them in a row along the bank B, in ſuch a manner, that they may all lie within two fingers breadth of the ground: they muſt not touch one another: when you have encloſed this bank, cut ſome ſmall boughs or herbs, all which place round the waters at the ſides marked C, L, Y, where the birds might drink, and this will oblige them to throw themſelves where the lime-twigs are, which they cannot diſcern, and leave no places uncovered round the water, where the birds may drink, but that at B: then retiring to your ſtand

to conceal yourself, but so as that you may see all your lime-twigs, and when any thing is catched, hasten to take it away and replace the lime-sticks, where there is occasion. But as the birds which come to drink, consider the place where they are to alight for it, for they do it not at once, but rest upon some tall trees, if there be any, or on the tops of bushes, and after they have been there some time, get to some lower branches, and a little after alight on the ground; in this case you must have three or four great boughs like those represented at the side Y, which you are to pitch in the ground at the best place of access to the ditch, about a fathom distant from the water: take off the branches from the middle, to near the top, and let the disbranched part be sloping toward the water, to the end you make notches therein with a knife, at three fingers distant from each other, in order to put in several small lime twigs, as you see by the cut; you must lay them within two fingers breadth of the branch, and so dispose them in respect to one another, that no bird which comes to alight thereon can escape being entangled: it is certain if you take six dozen of birds, as well on the boughs as on the ground, you will catch two-thirds on the branches at Y. *See* Plate II. Fig. 7.

The time for this sport is from two in the morning till evening, half an hour before sun-set; but the best time is from about ten to eleven, and from two to three; and lastly, an hour and a half before sun-set, when they approach to the watering-place in flocks, because the hour presses them to retire to roost.

The best season for this diversion, is when the weather is hottest; you must not follow it when it rains, nor even when the morning dew falls, because the birds then satisfy themselves with the water they find on the leaves of trees, neither will it be to any purpose to pursue the sport when the water after great rains lies in some places on the ground: it must first dry up, or else you will lose your labour.

Large, as well as small birds, are taken at such watering-places. *See* LOW-BELL *and* PITFALL.

BIRDLIME, stuff prepared after different ways: the common method is to peel a good quantity of holly bark about Midsummer, fill a vessel with it, put spring water to it, boil it till the grey and white bark arise from the green, which will require twelve hours boiling; then take it off the fire, drain the water well from it, separate the barks, lay the green bark on the ground in some cool cellar, covered with any green rank weeds, such as dock-thistles, hemlock, &c. to a good thickness; let it lie so fourteen days, by which time it will become a perfect mucilage; then pound it well in a stone mortar, till it become a tough paste, and that none of the bark be discernible; you then wash it well in some running stream, as long as you perceive the least motes in it: then put it into an earthen pot to ferment, scum it for four or five days, as often as any thing rises, and when no more comes, change it into a fresh earthen vessel, and preserve it for use in this manner. Take what quantity you think fit, put it into an earthen pipkin, add a third part of capon's or goose grease to it, well clarified, or oil of walnuts, which is better, incorporate them on a gentle fire, and stir it continually till it is cold, and thus it is finished.

To prevent frost: take a quarter of as much oil of petroleum as you do goose grease, and no cold will congeal it: the *Italians* make theirs of the berries of the misletoe-tree, heated after the same manner, and mix it with nut oil, an ounce to a pound of lime, and taking it from the fire, add half an ounce of turpentine, which qualifies it also for the water.

Great quantities of bird-lime are brought from *Damascus*, supposed to be made of sebestens, because we sometimes find the kernels; but it is subject to frost, impatient of wet, and will not last above a year or two good. There comes also of it into *England* from *Spain*, which resists water, but is of an ill scent: it is said the bark of our lantona, or way-faring shrubs, will make as good birdlime as any.

How to use BIRDLIME.

When your lime is cold, take your rods, and warm them a little over the fire; then take your lime, and wind it about the top of your rods, then draw your rods asunder one from another, and close them again, continually plying and working them together, till by smearing one upon another, you have equally bestowed on each rod a sufficient quantity of lime.

If you lime any strings, do it when the lime is very hot, and at the thinnest, besmearing the strings on all sides, by folding them together, and unfolding them again.

If you lime straws, it must be done likewise when the lime is very hot, doing a great quantity together, as many as you can well grasp in your hand, tossing and working them before the fire till they are all besmeared, every straw having its due proportion of lime; having so done, put them up in cases of leather for use.

The best way of making water BIRDLIME, is the following:

Buy what quantity you think fit of the strongest birdlime you can procure, and wash it as long in clear spring water, till you find it very pliable, and the hardness thereof removed; then beat out the water extraordinarily well, till you cannot perceive a drop to appear, then dry it well; after this, put it into an earthen pot, and mingle with it capon's grease unsalted, as much as will make it run, then add thereto two spoonfuls of strong vinegar, a spoonful of the best sallad oil, and a small quantity of the best *Venice* turpentine; this is the allowance of these ingredients, which must be added to every pound of strong birdlime as aforesaid.

Having thus mingled them, boil all gently over a small fire, stirring it continually; then take it from the fire, and let it cool; when at any time you have occasion to use it, warm it, and anoint your twigs or straws, or any other small things, and no water will take away the strength thereof.

This sort of lime is best, especially for snipes and fieldfares.

Of

Of taking small BIRDS *which use Hedges and Bushes, with Lime-twigs.*

The great lime bush is best for this use, which you must take after this manner: cut down the main branch or bough of any bushy tree, whose branch and twigs are long, thick, smooth, and straight, without either pricks or knots, of which the willow or birch tree are the best; when you have pickt it and trimmed it from all superfluities, making the twigs neat and clean, then take the best birdlime, well mixed and wrought together with goose grease, or capon's grease, which being warmed, lime every twig therewith within four fingers of the bottom.

The body from whence the branches have their rise must be untouched with lime.

Be sure you do not daub your twigs with too much lime, for that will give distaste to the birds, yet let none want its proportion, or have any part left bare which ought to be touched, for as too much will deter them from coming, so too little will not hold them when they are there. Having so done, place your bush in some quickset or dead hedge near unto towns ends, back yards, old houses or the like; for these are the resort of small birds in the spring time: in the summer and harvest, in groves, bushes, or white-thorn trees, quickset hedges near corn fields, fruit trees, flax and hemp lands: and in the winter about houses, hovels, barns, stacks, or those places where stand ricks of corn, or scattered chaff, *&c.*

As near as you can to any of those haunts plant your lime bush, and place yourself also at a convenient distance undiscovered, imitating with your mouth several notes of birds, which you must learn by frequent practice, walking the fields for that purpose very often, observing the variety of several birds' sounds, especially such as they call one another by.

Some have been so expert herein, that they could imitate the notes of twenty several sorts of birds at least, by which they have caught ten birds to another's one that was ignorant therein.

If you cannot attain it by your industry, you must buy a good bird-call, of which there are several sorts, and easy to be made; some of wood, some of horn, some of cane, and the like.

Having learnt first how to use this call, you should sit and call the birds unto you, and as any of them light on your bush, step not out unto them till you see them sufficiently entangled; neither is it requisite to run for every single bird, but let them alone till more come, for the fluttering is as good as a stale to entice them.

This exercise you may use from sun-rising till ten o'clock in the morning, and from one till almost sunset.

You may take small birds only with lime twigs, without the bush.

Some have taken two hundred or three hundred small twigs about the bigness of rushes, and about three inches long, and have gone with them into a field where there were hemp cocks: upon the tops of half a score lying all round together, they have stuck their twigs, and then have gone and beat that field, or the next to it, where they saw any birds, and commonly in such fields there are infinite numbers of linnets and green-birds which are great lovers of hemp-seed.

And they flying in such vast flocks, they have caught at one fall of them upon the cocks, eight dozen at a time.

But to return, there is another way of taking birds, with lime-twigs, by placing near them a stale or two made of living baits, placing them aloft that they may be visible to the birds thereabouts, who will no sooner be perceived, but every bird will come and gaze, wondering at the strangeness of the sight, and having no other convenient lighting place but where the lime-twigs are, you may take what number you like of them. But the owl is a far better stale than the bat, being bigger and more easily to be perceived; besides, he is never seen abroad, but he is followed and persecuted by all the birds that are near.

If you have not a living bat or owl, their skins will serve as well, stuffed, and will last you twenty years; there are some have used an owl cut in wood and naturally painted, with great success.

Another Method of taking all Manner of small BIRDS *with* BIRDLIME.

In cold weather, that is in frost or snow, all sorts of small birds gather together in flocks, as larks, chaffinches, linnets, gold-finches, yellow-hammers, buntings, sparrows, &c.

All these, except the lark, perch on trees or bushes, as well as feed on the ground.

If they resort about your house, or adjacent fields, then use birdlime that is well prepared and not too old; which order after the following manner:

Put the birdlime into an earthen dish, adding to it some fresh lard or capon's grease, putting one ounce of either to a quarter of a pound of birdlime, then setting it over the fire, melt it gently together; but you must be sure not to let it boil, which would take away the strength of the birdlime and spoil it.

It being thus prepared, and you being furnished with a quantity of wheat-ears; cut the straw about a foot long besides the ears, and lime them for about six inches from the bottom of the ears to the middle of the straw; the lime being warmed that it may run the thinner upon the straw, and therefore be the less discernible, and liable to be suspected by the birds.

Then go into the field, carrying with you a bag of chaff, and threshed ears, which scatter around for the compass of twenty yards in width (this will be best in a snowy season) then stick up the limed straws with the ears leaning, or at the ends touching the ground, then retire from the place, and traverse the ground all round about; and by that means you disturb the birds in their other haunts, and they will fly to the place where the chaff, *&c.* has been scattered, and the limed straws set up, and by pecking at the ears of corn, and finding that they stick upon them, they will straight-way mount up from the earth, and in their flight the bird-limed straws lying under their wings, will cause them to fall, and not

 being

being able to disengage themselves from the straw, may be taken with ease. You must not go and take them up when you see five or six entangled, for that may prevent you from taking as many dozen at a time.

If the birds that fall, where your limed straws are, be larks, do not go near them till they rise of themselves and fly in great flocks; by this method some have caught five or six dozen at a time.

Some of these straws may be laid nearer home, for taking finches, sparrows, yellow-hammers, &c. which resort near to houses, and frequent barn-doors; where they may be easily taken by the foregoing method.

Having performed this in the morning, take away all the limed ears, that so the birds may feed boldly, and not be disturbed or frighted against next morning, and in the afternoon bait the same place with fresh chaff and ears of corn, and let them rest till the next morning; and then having stuck up fresh limed wheat-ears, repeat your morning birding recreation.

BISHOPING, a term amongst horse-coursers, which they use for those sophistications they practise to make an old horse appear young, and a bad one good, &c.

BITCH, if she grow not proud so soon as you would have her, she may be made so, by taking two heads of garlic, half a castor's stone, the juice of cresses, and about twelve *Spanish* flies or cantharides, all which boil together in a pipkin which holds a pint, with some mutton, and make broth thereof; give her some twice or thrice, and she will infallibly grow proud: the same pottage given to a dog will make him desirous of copulation.

Again, when she is lined and with puppy, you must not let her hunt, for that will make her cast her whelps, but let her walk up and down the house and court unconfined, and never lock her up in her kennel, for she is then impatient for food, and therefore you must make her some broth once a day.

If you will spay your bitch, it must be done before ever she has a litter of whelps, and in spaying her, take not out all the roots or strings of the veins, for in so doing, it will much prejudice her reins, and hinder her swiftness ever after; whereas by leaving some behind it will make her much stronger and more hardy; but whatever you do, spay her not when she is proud, for that will endanger her life, but it may be done fifteen days after; though the best time of all is when the whelps are shaped within her.

For the rest. *See* DOGS, *and choosing of them.*

BITT, or HORSE-BITT, in general, signifies the whole machine of all the iron appurtenances of a bridle; as the bitt-mouth, the branches, the curb, the sevil-holes, the tranchefil, and the cross chains: but it often signifies only the bitt-mouth in particular.

BITT-MOUTH, is a piece of iron forged several ways, in order to be put into a horse's mouth, to keep it in subjection.

Of these bitt-mouths, some are single cannon mouths, some are cannon mouths with an upset, or mounting liberty; some scatch mouths, some mouths after the form of a barge, some with two long turning olives, and several other sorts; all with different liberties for the tongue, or without liberty.

But all bitt-mouths ought still to be proportioned to the mouth of the horse, according as it is more or less cloven and wide, or more or less sensible and tender; according as the tongue and lips are higher or flatter, and as the palate is more or less fleshy; observing with all, that if the horse be old, the palate will always have but little flesh upon it.

A bitt-mouth all of a-piece, without a joint in the middle, is called by the *French*, a bitt that presses *de l'entier*. See BARS.

BITTS: the iron which is put into a horse's mouth, is called a bitt, or bitt-mouth; in the middle whereof there is always an arched space, for the lodging of the tongue; which is called the liberty. It is the opinion of the Duke of *Newcastle*, that as little iron as possible, should be put into a horse's mouth: and we seldom use any other than snaffles, cannon mouths jointed in the middle, cannon with a fast-mouth, and cannon with a port-mouth, either round or jointed.

As for the bitts in use, beside the snaffle, or small watering bitt, there is the cannon-mouth jointed in the middle, which always preserves a horse's mouth whole and sound; and though the tongue sustains the whole effort of it, yet it is not so sensible as the bars; which are so delicate, that they feel its pressure through the tongue, and thereby obey the least motion of the rider's hands.

The larger it is towards the ends fixed to the branches, the gentler it will be. We should make use of this mouth to a horse as long as we can; that is, if with a simple cannon-mouth we can draw from a horse all the obedience he is capable of giving, it will be in vain to give him another; this being the very best of all.

The cannon with a fast mouth is all of one piece, and only kneed in the middle, to give the tongue freedom. It is proper to secure those mouths that chack or beat upon the hands: it will fix their mouths, because it rests always in one place; so that deadening the same, in a manner, thereby, the horse loses his apprehensiveness, and will soon relish this bitt-mouth better than the last; which being jointed in the middle, rests unequally upon the bars, this however because not jointed in the middle, is more rude. The middle of this bitt should be a little more forward, to give the more play to the horse's tongue; and the bitt should rest rather on the gums, or outsides of the bars, than upon their very ridges.

The fourth sort is called, the cannon-mouth with the liberty; after the form of a pigeon's neck. When a horse's mouth is too large, so that the thickness thereof supports the mouth of the bitt, that it cannot work its effects on the bars, this liberty will a little disengage it, and suffer the mouth of the bitt to come at, and rest upon, his gums; which will make him so much the lighter upon the hand.

The port-mouth, is a cannon, with an upset or mountain liberty; proper for a horse with a good mouth, but a large tongue working its effects upon the lips and gums: and because the tongue is disengaged, it will subject the horse that hath high bars, and in some degree sensible. This useful bitt, if well made, will never hurt a horse's head.

The

The ſcatch-mouth, with an upſet or mountain liberty, is ruder than a cannon-mouth, becauſe not fully ſo round, but more edged; and preferable to them in one reſpect; which is, that thoſe parts of a cannon-mouth to which the branches are faſtened, if not well rivetted, are ſubject to ſlip; but the ends of a ſcatch-mouth can never fail, becauſe of their being over lapped; and therefore much more ſecure for vicious and ill-natured horſes.

Mr. Pignatel's cannon-mouth with the liberty, is proper for a horſe with a large tongue and round bars, as being only ſupported a little by his lips. Care ſhould be had, never to work a horſe with one rein, as long as he has one of theſe bitt-mouths. The deſcription Sir William Hope gives of this bitt is, that it has a gentle falling and moving up and down; and the liberty ſo low as not to hurt the horſe's mouth; and certainly the beſt bitt for horſes that have any thing of a big tongue.

Some are of opinion, that the beſt way to fit a horſe exactly with a bitt, is to have a great many bitts by them, and change till they hit the right: but at firſt, be ſure to let him have a gentle one; and be rightly lodged in his mouth, ſo as not to frumple his lips, or to reſt upon his tuſhes: then let him be mounted, and pulled two or three ſteps back; whereby you will know if his head be firm, if he performs frankly, or only obeys with reluctancy; that ſo you may give him another bitt, which may gain his conſent. If he inclines to carry low, you are not to give a liberty for the tongue, which will riſe too high; for that by tickling his palate, would bring his head down between his legs. *Note*, that large curbs, if they be round, are always moſt gentle.

BITE or Bruise in a Horse; the Cure—

Take of calamine quenched in white wine, two drachms, one ounce of the juice of houſeleek, two ounces of the ſeed of mallows, and one ounce of Venice treacle; make the whole up into balls, as large as walnuts, and give them in a quarter of a pint of ſallad oil; at the ſame time apply a plaiſter of hemlock and barrow-pig's greaſe well ſtamped and mixed together. Continue this for a week, and it will have its deſired effect.

Bite of venomous animals in ſheep; the Cure—

Simmer over a gentle fire, in half a pint of aqua vitæ, a ſmall handful of bruiſed rue and the like quantity of ſmallage; apply it poultice-wiſe to the wound, and give the liquor ſtrained off to the ſheep to drink.

Bite of a mad dog, in ſwine; a Remedy—

Diſſolve a handful of bay-ſalt in a pint of man's urine and a little ſoot; beat theſe together with the yolk of two eggs, and bathe the wound therewith; then lay on a plaiſter of turpentine, mithridate, and bees-wax, and give the ſwine ſome verjuice warm to drink.

BITTERN, the name of a bird of the heron-kind; in Engliſh, butterbump, and mire-drum. It builds on the ground, and lays five or ſix eggs, which are roundiſh, and of a greeniſh white. When wounded and going to be taken, ſtrikes at the perſon's eyes, and ought carefully to be guarded againſt.

BLACK, moor, or coal-black, is the colour of a horſe that is of a deep, ſhining, and lively black. Horſes entirely black, are accounted dull, but thoſe with a white ſoot or white ſpots in their forehead, are more alert and ſprightly.

BLACK-BIRD; this bird is known by all perſons.

She makes her neſt many times when the woods are full of ſnow, which happens very often in the beginning of *March*; and builds it upon the ſtumps of trees, by ditch ſides, or in a thick hedge; being at no certainty, like other birds: the outſide of her neſt is made with dry graſs and moſs, and little dry ſticks and roots of trees, and ſhe daubs all the inſide with a kind of clayey earth; faſhioning it ſo round, and forming it ſo handſome and ſmooth, that a man cannot mend it.

They breed three or four times a year, according as they loſe their neſts; for if their neſts are taken away, they breed the ſooner; the young ones are brought up with almoſt any meat whatſoever.

This bird ſings about three months in the year, or four at moſt, though his ſong is worth nothing; but if he be taught to whiſtle, he is of ſome value, it being very loud, though coarſe; ſo that he is fit for a large place, not a chamber.

When black-birds, thruſhes, *&c.* are taken old and wild, and are to be tamed, mix ſome of their kind among them, putting them into cages of three or four yards ſquare, in which place divers troughs, filled, ſome with hawes, ſome with hemp-ſeed, and ſome with water; ſo that the tame teaching the wild to eat, and the wild finding ſuch a change, and alteration of food, it will, in twelve or fourteen days, make them grow very fat, and fit for the uſe of the kitchen.

BLACK-LEGS, a name given in Lincolnſhire, to a diſeaſe frequent among calves and ſheep, which in many parts of England, is called the dropſy or puffing up of the ſkin. It is a kind of jelly that ſettles in their legs and neck, and proceeds from too great a degree of moiſture in their food, which getting between the ſkin and fleſh, cannot be evacuated by perſpiration, and ſo corrupting, cauſes the rot.—To cure which, clip off the wool near the ſwelled part, and ſlit the ſkin about an inch; then dip a tent of linen in oil of ſpike, and put it in; this being twice or thrice repeated, will draw the whole of the water away. This done, ſteep an ounce of regulus of antimony in a pint of ale, with a little ſpice called grains, and ſome brown ſugar, of which, give a quarter of a pint each morning as warm as convenient.

Bladder Angling, is as much for diverſion as uſe. It is generally practiſed in large ponds, with an ox's bladder, and a bait fixed on an armed hook, or a ſnap-hook. The quick riſing of the bladder after it has been pulled under water, never fails to ſtrike the fiſh as effectually as a rod; and let him ſtruggle as much as he will the bladder always ſecures him. *See* Angling.

BLADDER and kidneys of a Horse: when the back and loins are weak, and there is a difficulty of ſtaling, with a general faintneſs, loſs of appetite, and deadneſs of the eyes; when the urine is thick, foul, and ſometimes bloody, you may then be aſſured that his kidneys and bladder are diſordered.

Rowelling and bleeding are the firſt remedies; theſe will prevent inflammations, and hinder the progreſs of the

the fever, for a fever generally attends these disorders, to which you must alternately administer the following diuretic and strengthening balls; and if a clyster is necessary, you may use the one subjoined. A diuretic medicine is

Take Strasburg turpentine, and Venice soap, of each one ounce, nitre six drachms, powdered myrrh two drachms; make these into a ball with honey, and wash it down with any proper liquid. Or,

Take of Castile soap twelve ounces, scrape it very small, and add two ounces of dialthæ; incorporate these; and make them up into balls as large as pigeons eggs. When you find the horse afflicted as aforesaid, dissolve one of them in a pint of ale, and give it him as hot as he can bear it, and it will force a passage for the urine without much difficulty.—This is also good for the stone and gravel in the kidneys. The following is a strengthening ball.

Take sal prunella half an ounce, spermaceti, six drachms, and Lucatelli's balsam one ounce; if the urine is bloody, add half an ounce of japan earth; mix these into a ball with honey, and wash it down with a decoction of marshmallows, or other proper liquid. The Clyster is as follows:

Take of jalap two drachms, juniper and bay berries each a handful, bruise them and boil them in two quarts of mallow decoction; then strain off, and mix, by degrees, Barbadoes aloes two ounces, and Venice turpentine two ounces, beat up with the yolks of two eggs: when mixed as directed, add a pint of linseed oil.

BLAIN, a distemper incident to beasts, being a bladder growing on the root of the tongue, against the windpipe, which swells to such a pitch as to stop the breath. It comes by great chafing and heating of the stomach, and is perceived by the beast's gaping and holding out his tongue, and foaming at the mouth. To cure it, cast the beast, take forth his tongue, and then slitting the bladder, wash it gently with vinegar and a little salt.

BLAZE. *See* STAR and WHITE-FACE.

BLAZES. It is a notion, that those horses that have white faces or blazes, if the blazes be divided in the middle, crossways, is the mark of an odd disposition.

BLEAK, and BLEAK-FISHING: some call this a fresh water sprat, or river swallow, because of its continual motion; and others will have this name to rise from the whitish colour, which is only under the belly.

It is an eager fish, caught with all sorts of worms bred on trees or plants; as also with flies, paste, and sheep's blood, *&c.*

And they may be angled for with half a score hooks at once, if they can be all fastened on: he will also in the evening take a natural, or artificial fly; but if the day be warm and clear, no bait so good for him as the small fly at top of the water: which he will take at any time of the day, especially in the evening: and indeed there are no fish yield better sport to a young angler than these; for they are so eager that they will leap out of the water for a bait: but if the day be cold and cloudy, gentles and caddis are best; about two feet under water.

There is another way of taking bleak, which is by whipping them in a boat, or on a bank-side, in fresh water, in a summer's evening, with a hazel top, above five or six feet long, and a line twice the length of the rod: but the best method is with a drabble; which is, tie eight or ten small hooks a-cross a line, two inches above one another, the biggest hook the lowermost (whereby you may sometimes take a better fish) and bait them with gentles, flies, or some small red worms; by which means you may take half a dozen, or more at a time.

BLEEDING at the nose in horses. This happens more especially in young horses, in consequence of the abundance of blood, that through the free passage of the large veins, ascends into the head; and, passing to the thin veins within the nostrils, either by its violent motion forces them, or by its corrosive quality eats them asunder; though it sometimes happens from a blow or violent straining. To remedy which,

Take the juice of nettles, mixed with loaf-sugar, and squirt it upon the horse's nostrils, using at convenient times to burn under his nose, storax, frankincense, or linen dipped in aqua vitæ, in a chafing-dish; the fume of which will oblige the blood to retreat: or instead of nettle-juice, you may use that of garlic, blowing up after it, powder of dried rhubarb. *See* BLOOD-LETTING.

BLEMISH, a hunting term; used when the hounds, or beagles, finding where the chase has been, make a proffer to enter, but return.

BLEND-WATER, called also MOREHOUGH, a distemper incident to black cattle, comes either from the blood, from the yellows, or from the change of ground. In order to cure it, take bole-armoniac, and as much charcoal dust as will fill an egg-shell, a good quantity of the inner bark of an oak, dried and powdered, by pounding the whole together, and give it to the beast in a quart of new milk, and a pint of earning.

BLEYNE or BLEYME, an inflammation arising from bruised blood between the horse's sole and the bone of the foot, towards the heel: of these there are three sorts, the first being bred in spoiled wrinkled feet, with narrow heels, are usually seated in the inward or weakest quarter. In this case the hoof must be pared, and the matter let out; then let oil de merveille be poured in, and the hoof be charged with a remolade of soot and turpentine.—The second sort, besides the usual symptoms of the first, infects the gristle, and must be extirpated, as in the cure of a quitter bone, giving the horse every day, moistened bran, with two ounces of liver of antimony, to divert the course of the humours, and purify the blood.—The third sort of bleymes, is occasioned by small stones and gravel between the shoe and the sole. In this case the foot must be pared, and the matter, if any, let out. if there be no matter, then the bruised sole must be taken out, but if there be matter, the sore must be dressed like the prick of a nail. *See* HOOF CAST.

MOON

BLINDNESS in Horses, may be thus discerned: the walk, or step of a blind horse, is always uncertain and unequal: so that he dares not set down his feet boldly, when led in one's hand: but if the same horse be mounted by an expert horseman, and the horse of himself be a horse of metal, then the fear of the spurs will make him go resolutely and freely, so that his blindness can hardly be perceived.

Another mark by which you may know a horse that has lost his sight, is, that when he hears any body enter the stable, he will prick up his ears, and move them backwards and forwards: the reason is, that a vigorous horse having lost his sight, mistrusts every thing, and is continually in alarm at the least noise that he hears.

Moon **BLIND**, denotes horses that lose their sight at certain times of the moon's age: to cure which, take half an ounce of lapis calaminaris, heat it red hot, and quench it in a quarter of a pint of plantain water or white wine: to this add half a drachm of aloes, and a spoonful of camphor, in powder; and letting them dissolve, drop part of it into the eyes of the horse.

BLOCK, (in Falconry) is the perch upon which they place the hawk. It ought to be covered with cloth.

BLOOD-HOUND, is of all colours; but for the generality of a black brown, and reddish in several places, especially upon the breast and cheeks: they have long, thin, hanging down ears, and differ from other dogs only in their cry and barking.

Being set on by the voice or word of their keeper, to seek about for game, and having found it, they will never leave off the pursuit, until it be tired; nor will they change it for any other fresh game that they meet with; and they are observed to be very obedient to their masters.

These hounds are of that property, that they do not only keep to their game while living, but it being by any accident wounded, or killed, will find it out; and that by the scent of the blood sprinkled here and there upon the ground, which was shed in its pursuit; by which means deer-stealers are often found out.

The blood-hound differs little or nothing in quality from the *Scottish* sluth-hound, excepting that they are of a larger size, and not always of one and the same colour; for they are sometimes red, sanded, black, white, spotted, and of all colours with other hounds; but most commonly either brown or red.

They seldom bark, except in their chase; and are attentive to the voice of their leader.

Those that are white are said to be quickest scented, and surest nosed, and therefore are best for the hare; the black ones are best for the boar, and the red for the hart and roe.

Though this is the opinion of some, yet others differ from them, because their colour (especially the latter) is too like the game they hunt; although there can be nothing certain collected from their colour; but indeed the black hound is the hardier, and better able to endure the cold than the white ones.

They must be tied up till they hunt; yet are to be let loose now and then a little, to ease their bellies; and their kennels must be kept sweet and dry.

There is some difficulty in distinguishing a hound of an excellent scent; but some are of opinion, that the square and flat nose is the best sign of it; likewise a small head, having all his legs of equal lengths, his breast not deeper than his belly, and his back plain to his tail; his eyes quick, his ears hanging long, his tail nimble, and the beak of his nose always to the earth: and especially such as are most silent and bark least.

You may now consider the various dispositions of hounds, in the finding out of their beast.

Some are of that nature, that when they have found the game, they will stand still till the huntsman comes up; to whom, in silence, by their face, eye, and tail, they shew the game: others, when they have found the foot-steps, go forward without any voice, or either shew of ear or tail: another sort, when they have found the footings of the beast, prick up their ears a little, and either bark or wag their tails; and others will wag their tails, and not move their ears.

Again, there are some that do none of these: but wander up and down, barking about the surest marks, and confounding their own foot-steps with those of the beast they hunt: or else forsake the way, and so run back again to the first head; but when they see the hare, are afraid, not daring to come near her, except she start first.

These, with others who hinder the cunning labour of their colleagues, trusting to their feet, and running before their betters, deface the best mark, or else hunt counter, and take up with any false scent, instead of the true one; or, never forsake the highways, and yet have not learnt to be silent.

To these also may be added, those which cannot discern the footing, or pricking of the hare, yet will run with speed when they see her; pursuing her very hotly at the first, and afterwards tire, or hunt lazily. All these are not to be admitted into a kennel of hounds.

But on the contrary, those hounds which are good, when they have found a hare, make shew thereof to the huntsman, by running more speedily; and with gesture of head, eyes, ears, and tail, winding to the form, or hare's muse, never give over prosecution with a good noise. They have good hard feet and stately stomachs.

And whereas the nature of the hare is sometimes to leap, and make headings; sometimes to tread softly, with a very small impression in the earth: or sometimes to lie down, and even to leap or jump out and into her own form, the poor hound is so much the more busied and troubled to retain the small scent of her pricking that she leaves behind her, in which case it is requisite that you assist the hound, not only with voice, eye, and hand, but with a seasonable tune also, for in frosty weather the scent freezes with the earth, so that there is no certainty of hunting till it thaws, or that the sun rise.

In like manner, if a great deal of rain fall between the starting of the hare and time of hunting, it is not right to hunt till the water be dried up; for the drops disperse the scent of the hare; and dry weather collecteth it again

The summer-time also is not fit for hunting, because the

the heat of the weather consumeth the scent; and the nights being then but short, the hare travelleth not far, feeding only in the morning and evening: besides, the fragrancy of flowers and herbs then growing, flattens and diminishes the scent the hounds are guided by.

The best time for hunting with these hounds, is in Autumn; because then the former odours are weakened, and the earth barer than at other times.

These hounds do not only chase their game while it lives, but after it is dead also, by any manner of casualty, make to the place where it lies; having in this place a sure and infallible guide; that is, the scent and savour of the blood, sprinkled here and there upon the ground; for whether the beast is wounded and lives, and escapes the hands of the huntsman, or if it be killed, and carried quite out of the park, (if there do but remain some marks of blood shed) these dogs, with no less facility and easiness than greediness, will discover the same by its scents, carrying on their pursuit with agility and swiftness; upon which account they deserve the name of blood-hounds.

And if a piece of flesh be subtilely stolen and cunningly conveyed away, although all caution imaginable is used, to prevent all appearance of blood, yet these kind of dogs, by natural instinct, will pursue deer-stealers, through craggy ways and crooked meanders, till they have found them out; and so effectually as that they can discover, separate, and pick them out from a great number of persons; nay, they will cull them out, though they intermix with the greatest throng.

BLOOD, a distemper in the backs of cattle, which will make a beast go as if he drew his head aside, or after him. In order to cure it, you should slit the length of two points under his tail, and let him bleed well; but if he bleeds too much, knit his tail next the body, and then bind salt and nettles bruised into it.

BLOOD-LETTING, the signs or indications of blood-letting in a horse, are these: his eyes will look red, and his veins swell more than ordinary; he will also have an itching about his mane and tail; and be continually rubbing them, and sometimes will shed some of his hair; or he will peel about the roots of his ears, in the places where the head-stall of the bridle lies; his urine will be red and high-coloured, and his dung black and hard, likewise if he has red inflammations, or little bubbles on his back, or does not digest his meat well; or if the white of his eye is yellow, or the inside of his upper or nether lip be so, these are signs that he stands in need of bleeding.

The propereſt time for bleeding horses, is in the winter and cool months, from *January* to *July*; (but in *July* and *August*, by reason the dog-days are then predominant, it is not good, but only in case of necessity) and so from *August* to *January* again.

As to the manner of bleeding; you must never take so much blood from a colt as from an older horse, and but a fourth part as much from a yearling foal; you must also have regard to the age and strength of the horse, and before you bleed him, let him be moderately chafed and exercised, resting a day before, and three days after it, not forgetting that *April* and *October* are two principal seasons for that purpose; and he will also bleed the better, if he be let to drink before he is blooded, so that he be not heated.

Then tie him up early in the morning to the rack without water or combing, lest his spirits be too much agitated, and draw with a pair of fleams of a reasonable breadth, about three pounds of blood, and leave him tied to the rack.

During the operation, put your finger in his mouth and tickle him in the roof, making him chew, and moving his chaps, which will force him to spin forth: and when you find he has bled enough, rub his body well over with it, but especially the place he is blooded on, and tie him up to the rack for an hour or two, lest he bleed afresh: for that will turn his blood.

Mr. LAWRENCE says, that the well-known use of bleeding, is in all cases of inflammation, or with the intent of prevention, in cholic, suppression of urine, strains, blows, or other accidents. Phlebotomy, in small quantities, is sometimes recurred to in weak and impoverished habits, in order to remove the lentor of the blood, and invigorate the circulation; but in inflammatory fever, it is the sheet-anchor, without the help of which, it would be totally impossible for nature, human or brute, to outride the storm. Many are lost, for want of timely or sufficient bleeding in inflammatory cases. The quantity even of four or five quarts, may be safely taken, at one time, from a large, robust, and plethoric horse, should the exigence of the case demand a very considerable evacuation. Upon ordinary occasions, the portion is between one and two quarts, by measure; I repeat, by measure, because notwithstanding, scarce a veterinary writer since the days of SOLLEYSEL, has failed to declaim against the beastly and dangerous practice of drawing off a horse's blood at random, and by guess upon a dunghill, like water from a water-but, yet the same race of hard-headed idiots, into whose care we still wisely commit the health of our horses, continue the enormity. The pulse of a horse in full health, and not under the influence of alarm, makes from thirty-six (Dr. HALE's statement) to perhaps forty-five strokes in a minute; a late writer on the strangles, says a horse with a pulse as high as fifty, may be well, and free from fever; but we have reason either to suppose him in an error, or that the pulse in horses is an uncertain criterion. The strokes may be felt by gently pressing the temporal artery, or the ear, or the carotid arteries on each side the neck, or those near the heart, or within the legs, and they have been found during the highest degree of inflammation, and great pain, to amount to one hundred and twenty in a minute.

The old writers, who were unacquainted with the circulation, and of course expected peculiar benefits from local bleedings, named thirty one veins in the horse's body, at which he might be bled; to wit, the two temple-veins; the eye-veins, beneath the eyes; the palate-veins, in the mouth; the neck-veins; the plate-veins, in the breast; the fore-arm-veins; the shackle-veins, before; the toe-veins, before; the side, or flank-veins; the tail-vein; the haunch-veins; the hough-veins; the shackle-veins, behind; and the toe-veins, behind. But as

as from the incessant rotatory motion of the blood, bleeding cannot have a partial, but only the general effect of diminishing quantity, and of making more space in the vessels, it matters but little, from what vein blood be taken, any farther than the neck-veins are most convenient for the purpose, and therefore had always better be used.

It were to be wished, that the old, rude, Patagonian method, of forcibly driving a sharp instrument into the body of a horse, with a club, or blood-stick, could be totally abolished; but there certainly is some difficulty in the case, at least with common operators. With veterinary surgeons in general, the practice has ceased, but the use of the spring-fleam is still attended with inconvenience; and a gentleman in the habit of bleeding horses, says, that he can perform the operation easiest and best, with a common small lancet. Every one acquainted with horses, knows enough of the inconveniences and dangers of the ancient method; sometimes a horse is struck ineffectually half a dozen times, slipping his head aside at every stroke, until the seventh, when the business is done, too effectually, and the vein divided, an artery or perhaps a tendon wounded; should the operation be upon the plate, or thigh-veins, such an accident might be fatal.

The most proper part of the neck to which to apply the lancet, is about a hand's breadth from the head, and one inch below the branching, or joining of the vein, which runs from the lower jaw, and which will appear full by pressing the main branch; the integuments also are thinnest thereabouts. In case, from the folly of frequent blood-letting, the neck of the horse should be covered with scars, it is then better to have recourse elsewhere, and an operator should accustom himself to bleed on either side indifferently. We have the authority of Mr. Clarke, for advising that a ligature be never made until (supposing the horse upon his legs) the orifice be opened, and even then it will frequently be needless, and as the pressure of the finger will in general occasion the blood to flow sufficiently free. I have seen ligatures made so excessive hard by ignorant smiths, that the patients have been nearly suffocated; and there are instances enough of horses absolutely falling down in an apoplectic fit, from the bandage being long continued upon such, which from ill usage were shy at the operation of bleeding. When a horse's head may be tied up to the rack, pinning the orifice is seldom necessary; but if it must needs be pinned, care ought to be taken that the skin be not drawn too far from the vein, so as to admit the blood between the skin and flesh, which frequently happens, producing suppuration, and a swelled neck: another precaution of equal consequence with any of the foregoing, is, that in case of accident in bleeding, the patient be immediately put into proper hands, if within the reach of such, from a rational apprehension of the cures of ignorant bunglers, which, their tediousness and danger out of question, too often leave an indelible designation of the doctor upon the body of the horse.

Solleysel speaks at large of the prognosticks to be drawn from the appearace, colour, and consistence of the blood in horses, and therein several authors have copied him; but Mr. Clarke observes, that the blood of horses which labour hard generally appears of a darkish or deep red, and sometimes with a thick yellow or buff crust; and that the blood of a sick horse will often have the appearance of one in full health, and *vice versâ*.

BLOOD-SPAVIN. *See* Spavin.

BLOOD IN HORSES, *to staunch*. If a horse happens to bleed excessively, so that, if not timely stopped, he may be weakened, or otherwise endangered, use the following remedy.

Take the wool of a hare or coney; dip it in vinegar, and then strew upon it the powder of calcined egg-shells, and apply it to the place; or you may, for want of the former, dip it in nettle-juice and bay-salt, or apply to the wound or sorrance a poultice of hemlock and the bark of elder-root. Or,

Take aloes hepatic and olibanum, of each half an ounce, and the wool of an old hare; bruise them with the white of an egg, and spread them on cotton-wool, binding them to the place, and there suffering them to continue till such time as you find the blood is turned back, and the film knit together, which will be within the space of two or three days. Or,

Take hare or rabbit's wool, and fill the cut or slit full of it: so hold it to with your hand, or bind it fast with some string; then burn the upper leather of an old shoe, and take the ashes of it and strew among the wool, and that will stay the bleeding; but let it lie on twenty-four hours before you take it off; then take a little wax, honey, turpentine, swine's grease, and wheat flour, set them all on the fire, and let them boil gently; stir and blend them together, then take them from the fire, and use them at your leisure. And, if there be a cut of any deepness, lay in a tent of flax or linen cloth dipped in the salve, but lay a plaister of the same over it; so let it lie on twenty-four hours; then remove it, and that is enough; it will heal it for certain.

BLOODY-Heeled-Cock. *See* Heeler.

Ebullition of the BLOOD. A disease in horses which proceeds from want of exercise, and gives rise to outward swellings, frequently mistaken for the farcin.

BLOOD RUNNING ITCH happens to an horse by an inflammation of the blood, being over-heated by hard riding, or other hard labour. It gets between the skin and the flesh, and makes a horse to rub, scrub, and bite himself; which, if let alone too long, will turn to a mange, and is very infectious to any horse that shall be nigh him; and the cures both for this and the mange, besides the general ones, of bleeding in the neck-vein, scraping him, and other things, are various.

BLOOD-SHOTTEN Eyes, in Horses. Cure—Steep Roman vitriol in white rose-water, or for want of that in spring-water, and wash the eyes with it twice or thrice a-day.

BLOODY FLUX, in Horses: is a profusion of bilious juices, which, being discharged from the sweet-bread and gall-bladder, causes an irritation, and a great quantity of blood to flow thither. When there is

blood discharged by the guts, the following powder may be given in warm port-wine.

Take cinnamon and tormentil-root of each half an ounce, saffron and cochineal of each two drachms. three ounces of powdered oyster-shells, contrayerva-root and Virginia snake-root, of each one ounce: when these are all well powdered, it is a sufficient quantity for six papers; two of which may be given every day in warm wine. Keep him well covered, and give no hay for two or three hours after the drink.

In some cases of the bloody-flux, the following clyster may be used with success: Take a quart of forge-water, and boil in it four ounces of oak-bark; two ounces of tormentil-roots; balaustines and red-rose leaves, of each a handful. To the strained decoction add three ounces of diascordium, one ounce of mithridate, and half a drachm of opium. Let this be injected warm, and repeated as often as there is occasion: if you are provided with a syringe that has a pretty large pipe, you may sometimes add two ounces of French bole, in powder or sealed earth.

But, above all things, you are to avoid mixing oil or butter, or any other greasy matter, with clysters that are of this intention, as is common among farriers; for these things are directly contrary to the nature of those applications, and will not only render their operation ineffectual, but increase the disease, and, instead of astringing and fortifying the bowels, will weaken them by causing a greater relaxation of their fibres.

Bloody-Urine. The disorder of staling blood by horses proceeds from various causes; from over straining when at work; travelling in hot weather; eating of green beetles upon the twigs or shrubs in the hedges, where the cattle brouze, or hot or spirituous herbs in the beginning of the grass-season; exposed to the cold when he has been over-heated; drinking too much water when put to hard exercise; and may sometimes proceed from an ulceration of the kidneys, when they are worn and abraded by sand or gritty matter, or by the acrimony and sharpness of the corruption that proceeds from the ulcer; yet the most usual cause of staling blood happens, when the renal ducts have been over-distended by any of the causes before-mentioned; and blood, for the most part, follows a too great profusion of urine, though this is seldom attended to by farriers.

As to the cure, whether there be only a great profusion of urine, or a flux of the blood, it is to be performed chiefly by medicines that strengthen and agglutinate, and likewise by such things as will divert the humours another way, by opening the pores; only, in case of blood, a vein should by all means be opened in the neck or breast, to make as speedy a revulsion as possible; because this kind of hæmorrhage proves sometimes fatal to horses, and that very suddenly. To cure which

After bleeding, a cooling purge, wherein sal-polychrest, or sal-prunella, has been dissolved, will be very convenient, as the following:

Take sal-prunella and sal-polychrest, of each one ounce; veleres, in powder, two ounces; barley-water, one quart; honey, half a pound; made warm, and given early in the morning for two or three days. Or,

Take rhubarb and jalap, in powder, of each half an ounce; salt of nitre, one ounce; with a sufficient quantity of honey and flour, make them into a ball, to be given as above; be careful that the horses have warm mashes of bran and water, during the operation of the physic.

But, if the flux of blood be violent, take two ounces of salt or sugar of lead, and dissolve it in a quart of vinegar or verjuice; and apply it cold to his breast, and it will stop it immediately, unless it proceeds from some pretty large branch of an artery, and in that case, unless the rupture be in the urinary passage, where it may be reached by a styptic injection, it will soon prove mortal. If your horse has got a fever, his feeding must be very moderate; if he has no other accident but a flux of urine, he may be indulged to feed somewhat more liberally, and among his oats may be strewed the seeds of melons, gourds, or white poppies; three or four of the heads of the said poppies, with the seeds, may be cut to pieces, and boiled in his water, which will give it no disagreeable taste. You may also give him now and then half a pint of sweet-oil, for all those things are very proper, and they will help to blunt the sharpness of the urine; but care must be taken not to let him drink too much water, but rather give it him the oftener, unless it be softened in the manner directed: or any of the following methods may be used at discretion.

Take a quantity of that cranesbill which is called herb-robert, bruise it in a mortar, and sprinkle it with red-port wine; when it is well mashed, press out the juice, and give a quarter of a pint of it every night and morning. If three doses do not perfectly stop the complaint, let the creature be blooded, and continue the medicine as before. Or,

Take of the herb called hart's-tongue, half a handful; piony-roots sliced, half an ounce; the juice of betony, half a pint; boil them in stale beer, and give them as hot as he is capable to endure, the liquid part only; and so continue to do in the morning fasting for a week together, and the defect will cease. Or,

Take piony-grass, scabious, and camomile, of each a pugil or half a handful, bruise cloves or cinnamon; boil these in a quart of vinegar or verjuice, and give hot to the beast fasting with a drenching-horn, a pint in a morning, and, if you see this stops it not, give three or four mornings the like quantity; or give him a dishful of the curds of runnet in a quart of milk, and let him fast four hours. Or,

Take shepherd's-purse, and a little cinnamon, boil it in two pints of red wine; so give it to the beast. Some take a loach, and put it down the throat quick. Or take blood-wort, shepherd's-purse, or knot-grass, of each an equal quantity; stamp all together, then strain them, and put them in a quart of red cow's milk; put to it some runnet of the said milk, and mix with it the leaven of brown bread; then strain them, and give it with a horn eight or nine days, if need be. Some give powder of husks of acorns in red wine.

BLOOD-RUNNING ITCH happens to a horse by an inflammation

inflammation of the blood, being over-heated by hard riding, or other sore labour. It gets between the skin and the flesh, and makes a horse to rub, scrub, and bite himself; which, if let alone too long, will turn to a grievous mange, and is very infectious to any horse that shall be nigh him; and the cures, both for this and the mange, besides the general ones, of bleeding in the neck-vein, scraping him, and other things, are various. *See* MANGE.

BLOSSOM, or PEACH-COLOURED HORSE; is one that has his white hair intermixed all over with sorrel and bay hairs.

Such horses are so insensible and hard, both in the mouth and in the flanks, that they are scarce valued: besides that, they are apt to turn blind.

BOAR WILD, although *England* affords no wild boars, yet being so plentiful in *Germany* and other countries, and affording so noble a chase, which is so much used by the nobility and gentry in those parts, I shall give the following account:

A wild boar is called a pig of the founder, the first year of his age; a hog the second; a hog's steer the third; and a boar the fourth; when leaving the founder, he is also termed a singler or sanglier. This creature is furnished with as many teeth at first, as he shall ever have afterwards: which only increase in bigness, not in number; among these they have four called tushes, or tusks, the two uppermost of which do not hurt when he strikes; but serve only to whet the other two lowest, with which they frequently defend themselves and kill, as being greater and longer than the rest. This is reckoned a beast of venery by huntsmen.

The common age of a boar is twenty-five or thirty years; they go to rut about *December*, and their great heat lasts about three weeks; and although the sows become cold of constitution, not coveting the company of the boar, yet they do not separate until *January*; and then they withdraw themselves unto their holds, wherein they keep close three or four days, not stirring thence, especially if they meet with such places where fern grows, the roots of which they delight to eat.

It is easier to take a boar in a toil in *April* or *May*, than in any other season, by reason they sleep at that time more soundly, which is caused by their eating of strong herbs, and buds of trees, which moisten their brains, and cause sleep. Also, the spring time occasions their sleeping.

Their food is on corn, fruits, acorns, chesnuts, beech-mast, and all sorts of roots; when they are in marshy and watery places, they feed on water-cresses, and such things as they can find: and when they are near the sea-coast, they feed on cockles, muscles, oysters, and such like fish.

A boar most commonly lies in the strongest holds of thorns and thick bushes, and will stand the bay before he will forsake his den.

If he is hunted from a strong thick covert, he will be sure to go back the same way he came, if it be possible; and when he is rouzed, he never stops, until he comes to the place where he thinks himself most secure.

If it so happens that there is a founder of them together, then, if any break founder, the rest will run that way; and if he is hunted in a hold or forest where he was bred, he will very difficultly be forced to quit it, but sometimes he will take head, and seem to go drawing to the outsides of the covert; but it is only to hearken to the noise of the dogs; for he will return again, from whence he will hardly be compelled till night; but having broken out, and taken head endways, he will not be put out of his way by man nor beast, by voice, blowing, or any thing else.

A boar will not cry when he is killed, especially a great boar; but the sows and young ones will. In fleeing before the dogs, he neither doubleth, nor crosseth, nor useth such subtleties as other beasts of chase do, as being heavy and slow, so that the dogs are still in with him.

How to hunt a BOAR *at Force with Dogs.*

The season for hunting the wild boar, begins about the middle of *September*, and ends in *December*, at which time they go a brimming.

It is not convenient to hunt a young boar of three years old at force; for he will stand up as long (if not longer) than any light deer, that beareth but three in the top; but in the fourth year you may hunt him at force as you do a hart at ten, and will stand up as long. Therefore if a huntsman goes too near a boar of four years old, he ought to mark whether he went timely to his den or couch, or not; for commonly those boars which tarry till day-light, go into their dens, following their paths or ways a long time, especially where they find fern or beech masts, whereon they feed; they are very hardy; and in the raising of this animal one need not be afraid to come near him, for he values you not, but will lie still, and will not be reared alone.

But if you find a boar which soileth oftentimes, and which routeth sometimes here and sometimes there, not staying long in a place, it is a sign that he has been scared, and withdraweth himself to some resting-place, and such boars most commonly come to their dens or holds two or three hours before day, and the huntsman must take care how he comes too near such a boar, for if he once finds him in the wind, or have the wind of his dogs, he will soon be gone.

It is also to be observed, that if a boar intends to tarry in his couch, he makes some doublings or crossings at the entry of it, upon some highway or beaten path, and then lies down to rest; by which means a huntsman being early in the woods, may judge of his subtlety, and accordingly prepare to hunt him with dogs that are either hot spirited or temperate.

If it be a great boar, and one that hath laid long at rest, he must be hunted with many dogs, and such as will stick close to him, and the huntsman, or spearman, on horseback, should be ever amongst them, charging the boar, and as much as possible to discourage him: for if you hunt such a boar with five or six couple of dogs, he will not regard them, and when they have chased him a little, he will take courage, and keep them at bay, still running upon any thing he sees before

fore him; but if he perceives himself charged and hard laid unto with dogs, he will be discouraged, and turn head and fly to some other place for refuge.

You ought also to set relays, which should be the best old staunchest hounds of your kennel; for if they should be young hounds, and such as are swift and rash to seize him before the rest come up, they will be killed or spoiled by him.

But if he be a boar that is accustomed to flee end ways before the dogs, and to take the champagne country, then you may cast off four or five couples at first, and set all the rest at relays, about the entrance of the fields where you think he is likely to flee; for such a boar will seldom keep the hounds at a bay, unless he be forced, and if he does stand at bay, then the huntsman ought to ride in unto him as secretly and with as little noise as possible, and when he is near him, let them cast round about the place where he stands, and run upon him all at once, and it will be odds, but that they will give him his death's wound with their spears or swords, provided they do not strike too low; for then he will defend the strokes with his snout; but be sure you keep not too long in a place, but use a quick motion.

You may also take notice, that if there be collars of bells about the dog's necks, a boar will not so soon strike at them; but flee end-ways before them, and seldom stand at bay.

It is expedient to raise a boar out of the wood early in the morning, before he hath made water, for the burning of his bladder quickly makes him weary; when a boar is first raised, he is used to snuff in the wind, to smell what is with, or against him.

Now if you strike at him with sword or boar-spear, do not, as has been said, strike low, for then you will hit him in the snout, which he values not, since he watches to take blows on his tushes or thereabouts; but lifting up your hand strike right down, and have a special care of your horse, for if you strike and hurt him, so will he you if he can; therefore in thus assaulting boars, the hunters must be very careful, for he will rush upon them with great fierceness.

However, he very rarely strikes a man, till he is first wounded himself, but afterwards it behoves the hunters to be very wary, for he will run fiercely, without fear, upon his pursuers, and if he receives not his mortal wound, he overthrows his adversary, unless he falls flat on the ground, when he needs not fear much harm; for his teeth cannot cut upwards but downwards; but with the female it is otherwise, for she will bite and tear any way.

But further, as the hunting spears should be very broad and sharp, branching forth into certain forks, that the boar may not break through them upon the huntsman, so the best places to wound him are the middle of his forehead, between the eye-lids, or else upon the shoulder, either of which is mortal.

Again, in case the boar makes head against the hunter, he must not fly for it, but meet him with his spear, holding one hand on the middle of it, the other at the end, standing one foot before another, and having a watchful eye upon the beast, which way soever he winds or turns; for such is his nature, that he sometimes snatches the spear out of the hunter's hands, or recoils the force back again upon him; in these cases there is no remedy, but for another of his companions to come up and charge the boar with his spear, and then make a shew to wound him with his dart, but not casting it, for fear of hurting the hunter.

This will make the boar turn upon the second person, to whose assistance the first must again come in, with which both will have work enough: nay when the boar feels himself so wounded that he cannot live, were it not for the forks of the boar-spear, he would press upon the vanquisher and revenge his death.

And what place soever he bites, whether man or dog, the heat of his teeth causeth an inflammation in the wound.

If therefore he does but touch the hair of the dog he burns it off; nay huntsmen have tried the heat of his teeth, by laying hairs on them as soon as he was dead, and they have shrivelled up as if touched with a hot iron.

The boar is a beast of such great force, and so slow of foot by reason of his heaviness, that he is not properly termed a beast of venery, for he chiefly trusts in his strength and tushes to be his defence, and not to his feet; so that he is more properly to be hunted with stout mastiffs than by greyhounds, which cannot so well defend themselves from his fury.

Also it spoils them from hunting other flying chases, by reason he leaves so strong a scent, so that they hunt with greater ease than at light chases, which are more painful to them to find, and to hold the scent.

The way to know a great BOAR *by his Foot, &c.*

To know him by his foot, the form of print of it ought to be great and large, the toes round and thick, the edge of the hoof worn and blunt, without cutting and paring the ground so much as the younger sort: and the guards, which are his hinder claws, or dew claws, should be great and open, one from the other; the treading of his foot should be deep and large, which indicates the weightiness of his body, and his steps should be great and long.

By the length and depth of his routing his size may be known; for a wild swine routs deeper than our ordinary hogs, because their snouts are longer: and also by the length and largeness of his soil, when he walloweth in the mire; also when he comes out of the soil, he will rub himself against a tree, by which his height will appear; as also when he sticks his tushes into it, by which the largeness of them will appear; they also observe the bigness of his lesses, and the depth of his den.

A boar is said to feed in the corn; but if in the meadows or fallow fields, they say he routeth or wormeth, or ferneth; but when he feeds in a close, and routeth not, they say he graseth.

Boar hunting is very usual in *France*, and they call it *sanglier*. In this sort of hunting the way is to use terrible sounds and noises, as well of voice as horns, to make the chase turn and fly, because they are slow and

and trust to their tusks for defence. But this must be done after his den or hold is discovered, and the nets be pitched.

Though these wild boars are frequent in *France*, we have none in *England*; yet it may be supposed that we had them here formerly; but did not think it convenient to preserve that game.

In the *French* hunting, when the boar stands at bay, the huntsmen ride in, and with swords and spears strike on that side which is from their horses, and wound and kill him.

But the ancient *Roman* method of hunting the boar, was standing on foot, or setting their knees to the ground, and charging directly with their spears: and the nature of the boar being such, he spits himself with great fury, running upon the weapon to come at his adversary, and so, seeking his revenge, meets his own destruction.

BOAR. A horse is said to boar when he shoots out his nose as high as his ears, and tosses his nose in the wind. *See* WIND.

BOBBING FOR EELS. You must provide a large quantity of well scoured lob-worms, and then with a long needle, pass a thread through them from head to tail until you have strung about a pound. Tie both ends of the thread together, and then make them up into about a dozen or twenty links. The common way is to wrap them about a dozen times round the hand, and then tying them all together in one place, makes the links very readily. This done, fasten them all to a small cord, or part of a trowling line, about four yards in length. Above the worms there should be a small loop to fix the worms to, and for a lead plummet to rest on. The plummet should weigh about half a pound, or from that to a pound, according to the stream, the smaller the line the less the plumb; it should be made in the shape of a pyramid, with a hole through the middle for the line to pass through; the broad part of the plummet, or the base of the pyramid, should be towards the worms, because they will keep it more steady. When you have put your plummet on your line, you must fasten it to a strong, stiff, taper pole, of about three yards long, and then the apparatus is finished.

Being thus prepared, you must angle in muddy water, or in the deeps or side of streams, and you will soon find the eels run strongly and eagerly at your bait. When you have a bite, draw them gently up towards the top of the water, and then suddenly hoist them on the shore, or in your boat; by this means you may take three or four at a time.

BODY OF A HORSE. In chusing a horse you must examine whether he has a good body, and is full in the flanks. It is no good sign, when the last of the short ribs is at a considerable distance from the haunch bone, or when the ribs are too much straightened in their compass; they ought to be as high as the haunch bone, or very little less, when the horse is in good case; but though such horse may for a time have pretty good bodies, yet if they be much laboured they will lose them.

A narrow-chested horse can never have a good body, not breathe well; and such horses as have straight ribs and being great feeders, and consequently come to gulf up their bellies, so as it not being possible for the entrails to be contained within the ribs, they will press down and make a cow's belly; these are also difficult to be saddled, but have generally good backs, and though their croups are not so beautiful, being for the most part pointed, yet to supply that, they have excellent reins; these horses are commonly called sow backs.

A light bodied and fiery horse a man never ought to buy, because he will soon destroy himself, but fierceness ought never to be confounded with vigour and high mettle, which last does not consist in fretting, trampling, dancing, and not suffering any horse to go before him, but in being very sensible of the spurs.

You ought to shun light bellied horses, which are very apt to be troubled with spakins, jardens, &c. and as painful scratches in the hind-legs often take away a horse's belly, this ought not to deter you from buying, unless they be in the back sinew of the legs, a pretty way above the pastern joint, which is one of the most troublesome external maladies a horse can have.

Except a low cased horse eats much hay, he cannot be made plump, which will make him have a belly like a cow with a calf; and may be remedied with a surcingle a foot and a half broad, with two little cushions to it, that may answer to the top of the ribs on either side the back-bone, to preserve the back from being galled. In the next place consider the flank.

You are to observe that the strongest state of body, which is the highest flesh, provided it be good, hard, and without inward foulness, is the best; yet you must take notice, that his shape and feeding are to be considered; to his shape and body, some that be round, plump, and close knit, will appear fat, when they really are lean and in poverty; and others that are raw boned, slender and loose knit together, will appear lean, deformed, and poor, when they are fat, foul, and full of gross humours.

So likewise as to their feeding; some will feed outwardly, carrying a thick rib, when they are inwardly clean, and without all manner of foulness: and there are others that appear clean to the eye, shewing nothing but skin and bone, when they are full of inward fatness: in this case there are two helps, the one inward, the other outward.

The inward help is only smart exercise, which dissolves, and melts the foulness; and strong scourings, which will bring it away.

The outward help in handling and feeling his body, especially the ribs towards his flank, and if his flesh generally handle loose and soft, your fingers sinking or pitting in, it is a sign of his foulness; but if his flesh be hard and firm, and only upon his hindmost rib handles soft and downy, it is a sign there is grease and foul matter within, which must be removed let him appear ever so lean.

If he be fat and thick, and as it were closed up under the chaps, or if his jaws handle full and fleshy, it is a sign of much foulness, both in the head and body; but if he handle thin, clean, and only with some lumps or small kernels within his chaps, in such case, it is a sign only of some cold newly taken.

BOILS OR BLAINS, IN SWINE.—The Cure.

Take bees-wax, turpentine, Burgundy-pitch, and a little soft grease to make them into a plaister over a gentle fire; clip away the hair or bristles where the sore is; anoint it first with ointment of tobacco, and then lay on the plaister, and, having kept it on two or three days, take it off, which if you find drawn to a head, and ready for lancing, you may do it; if not, clap on a fresh plaister for a day or two longer, and then lance and sprinkle burnt allum or burnt salt on the wound, after anoint it with the former ointment, so lay on a plaister of sheep's-suet and bees-wax to heal it.

BOLTING, OR BOULTING, *among sportsmen*, signifies rousing or dislodging a coney from its resting-place. They say to bolt a coney, start a hare, rouse a buck, &c.

BONES, FRACTURED OR STRAINED, IN HORSES or other CATTLE.—Cure.

Put those that are dislocated in their right place; then take an ointment of bees-wax, turpentine, deer's-suet, the juice of mugwort, stone-pitch, and mellilot, softened with the oil of earth-worms, and bind up the place, supplying it with ointments as occasion requires.

BOLSTERS OF A SADDLE, are those parts of a great saddle which are raised upon the bows, both before and behind, to hold the rider's thigh, and keep him in a right posture, notwithstanding the disorders the horse may occasion.

Common saddles have no bolsters. We use the expression of fitting a bolster, when we put the cork of the saddle into the bolster to keep it tight.

That part of the saddle being formerly made of cork, took first that name, though now it is made of wood.

BONE-SPAVIN. *See* SPAVIN.

BORING, an operation in use for the cure of wrenched shoulders in horses; which is performed thus: having cut a hole in the skin over the part affected, they blow it up with a tobacco-pipe, as a butcher does veal: after which they thrust a cold flat iron, like the point of a sword-blade, eight or ten inches up between the shoulder-blade and the ribs.

BOTTS IN HORSES are short thick worms like a maggot, having black heads, and are engendered through the corruption of heat and moisture in the maw or bowels of a horse, where they gnaw and afflict him in a heavy manner, and are discerned by his lifting up the feet to strike at his belly, and the small stomach he has to feed. To destroy them use the following ingredients.

Take rue, savin, night-shade, the seeds of ameos, each two ounces; bruise them well, and with honey and allum make them into little balls, and, buttering them over, suffer him to swallow two of them in the morning fasting, and, about an hour after, give him of sallad-oil and aqua vitæ, each a quarter of a pint, very hot; and after that let him stand another hour before you give him any provender; and this rule observe for a week together.

BOTTS, IN SHEEP. These are known by the sheep's stamping often, and striking at his belly with the feet, looking on its sides, &c.—Remedy.

Stamp the leaves of coriander and wormwood: mix the juice with honey, and give it the sheep fasting, in a little vinegar or verjuice.

BOUILLION, is a lump or excrescence of flesh that grows either upon or just by the frush, insomuch that the frush shoots out like a lump of flesh, and makes the horse halt; and this we call the flesh blowing upon the frush.

Your manage horses, which never wet their feet, are subject to these excrescences, which make them very lame.

BOULETTE; a horse is called boulette, when the fet-lock, or pastern joint, bends forward and out of its natural situation; whether through violent riding, or by reason of being too short jointed; in which case the least fatigue will bring it.

BOUTE; a horse is called boute, when his legs are in a straight line from the knee to the coronet.

Short jointed horses are apt to be aboute, and on the other hand long jointed horses are not.

BOW BEARER, an under officer of the forest, whose oath will inform you of the nature of his office, in these words—"I will true man be to the owner of this forest, and to his lieutenant, and in their absence, I shall truly oversee, and true inquisition make as well of sworn men, as unsworn, in every bailiwick, both in the north bail and south bail of this forest; and all manner of trespass done either to vert or venison, I shall truly endeavour to attach or cause to be attached, in the next court of attachment, there to be present without any concealment had to my knowledge; so help me God."

BOWET } a young hawk so called by falconers,
BOWESS } when she draws any thing out of her nest, and covets to clamber on the boughs.

BOWLING: the first and greatest cunning to be observed in bowling, is the right chusing your bowl, which must be suitable to the grounds you design to run on. Thus for close alleys your best choice is the flat bowl. 2. For open grounds of advantage, the round biassed bowl. 3. For green swards that are plain and level, the bowl that is as round as a ball.

The next thing that requires your care, is the chusing out your grounds, and preventing the winding hangings, and many turning advantages of the same, whether it be in open wide places, as bowling-greens, or in close bowling alleys.

Lastly, have your judgment about you, to observe and distinguish the risings, fallings, and advantages of the place where you bowl.

BOWS OF A SADDLE, are two pieces of wood laid arch-wise, to receive the upper part of a horse's back, to give the saddle its due form, and keep it tight.

The fore-bow which sustains the pommel, is composed of the withers, the breast, the points or toes, and the corking.

The withers, is the arch that rises two or three fingers over the horses withers.

The

The breasts are placed where the arch, or upper part of the bows, ends.

The points, or toes, are the lower part of the bow: and the corkings are pieces of wood formerly pieces of cork, upon which we fit and make fast to the bolsters.

The hind-bow bears the trossequin, or quilted roll.

The bows are covered with sinews, run all over the bows to make them stronger; then they strengthen them with bands of iron to keep them tight; and on the lower side of the bows, nail on the saddle straps, with which they make fast the girths.

BRACE, is commonly taken for a couple, or pair, and applied by huntsmen to several beasts of game, as, a brace of bucks, foxes, hares, *&c.* also a brace of greyhounds, is a proper term for two.

BRAMBLE-NET, otherwise called a hallier; is a net to catch birds with, and of several sizes: the great meshes must be four-square, those of the least size are three or four inches, and those of the biggest are five: in the depth they should not have above three or four inches, but as for the length they may be enlarged at pleasure: but the shortest are usually eighteen feet.

If you intend to have your net of four meshes deep, make it of eight; forasmuch as it is to be doubled over with another net; likewise between the said doublings; the inward net should be of fine thread, neatly twisted, with meshes two inches square, made lozenge wise, with a neat cord drawn through all the upper meshes, and one through the lower, whereby you may fix it to the doubled hallier: then, lastly, fasten your net to certain small sticks, about a foot and a half, or two feet long, and about the same distance from each other: the inward net must be both longer and deeper than the outward, that it may hang loose, the better to entangle the game. *See* Plates VII. and XII.

BRANCH STAND, (with Falconers) a term used to signify the making a hawk leap from tree to tree, till the dog springs the partridge.

BRANCHERS *among fowlers and falconers*, signifies a young bird well fledged, which has left the nest, though not sufficiently strong to fly far, or shift for itself, but remains in the bushes and hedges adjacent to its native dwelling, where it is fed by the dam.

The branchers of hawks are also called ramage-falcons; and those of nightingales, pushers.

Canary-birds when in their first year, are called branchers; but when just flown, and unable to feed themselves, pushers.

BRANCHES OF THE BRIDLE, are two pieces of iron bended, which in the interval between one and the other, bear the bitt-mouth, the cross-chains, and the grub; so that to one end they answer to the head-stall, and on the other to the reins, in order to keep the head of the horse in subjection. A hardy, bold, or strong, branch is one that brings in the head. A weak branch, is a branch that was formerly used for raising the head, but now is rejected; especially since the discovery of the error of those, who fancied, that it raised after the same manner with the kneed-branches. *See* BANQUET.

BRASSICOURT, OR BRACHICOURT; is a horse whose fore legs are naturally bended arch-wise; being so called by way of distinction from an arched horse, whose legs are bowed by hard labour.

BRAYE, an obsolete *French* word: made use of by some to signify the entry of the horse's throat; or the extremity of the channel towards the maxillary bones.

BRAYL, a piece of leather slit to put upon the hawk's wing to tie it up.

BREAD FOR HORSES: horses are sometimes fed with bread, to hearten and strengthen them: the way to make the same, is twofold.

1. Take wheat-meal, oat-meal, and beans, all ground very small, of each a peck; anise-seed, four ounces; gentian, and fenugreek, of each an ounce; liquorice, two ounces; all beaten into fine powder, and searsed well; to which add the whites of twenty new laid eggs, all well beat, and as much strong ale as will knead it up: then make your loaves, like to house-bread, but not too thick; and let them be well baked, but not burnt; then give it him, not too new; and let him have it five or six mornings together, without any provender.

2. Take of wheat-meal, rye-meal, beans and oat-meal, of each half a peck, ground very small; anise-seed and liquorice, an ounce of each; and white sugar-candy, four ounces: beat all into fine powder, with the whites and yolks of twenty new-laid eggs, well beaten; and put to them as much white-wine as will knead it into a paste; which then make into great loaves, and bake them well: and when two or three days old give him to eat thereof, but chip away the outside.

For race-horses, there are three sorts of bread used; given successively, for the second, third and fourth fortnights-feeding. 1. Take three pecks of clean beans, and one peck of fine wheat; mix them together, and grind them into pure meal; that done, bolt it pretty fine, and knead it up with good store of fresh barm, but with as little water as may be: labour it well in a trough, break and cover it warm, that it may swell: then knead it over again, and mould it into large loaves, in order to be well baked. When they are drawn from the oven, turn the bottoms upward, and let them cool: at three days old you may give your horse this bread, but no sooner; as nothing is more apt to surfeit than new bread. Or you may

2. Take two pecks of clean beans, with two pecks of fine wheat, and grind them well together; then bolt, and knead it with barm, or lightening, and make it up as you did the former bread. With this bread, having the crust cut quite away, and oats, or split beans, mingled together, or separately if you think fit, feed the horse as before, at his usual meals. Or,

3. Take three pecks of fine wheat, and one peck of beans; grind, and bolt them through the finest bolter you can get; then knead it up with new strong ale and barm, beat together, and the whites of twenty eggs, or more, and no water at all; but instead thereof a small quantity of new milk: at last work it up, bake and order it as the former: and with this bread, having the crust

crust cut off, adding clean oats and split beans, all mixed, or separate, feed your horse at his ordinary feeding-times as you did in the fortnight before.

BREAK; to break a horse in trotting, is to make him light upon the hand by trotting, in order to make him fit for a gallop. To break a horse for hunting, is to supple him, to make him take the habit of running.

BREAKING COLTS, Mr. LAWRENCE says, has not that attention among us, which its importance demands. There is a general want of well-qualified men in this way, as well as of good farriers. Our chance-medley breeders either break their horses themselves, or commit it to persons equally ignorant; whence the number of our *Garrons*, the breed and education of which are so well matched.

I have already given divers hints on this part of the subject, and once more repeat my advice of teaching the colt a good canter. If it should be held proper to learn him to leap the bar, care must be taken that he be not suffered to do it with a heavy weight, which may, in an instant, let down his tender sinews. It by no means injures a colt, of size and bone, to put a collar upon him, provided the draft be light and easy; for instance, plowing light sands; his knowing how to draw, may be of after use and profit.

The utmost care should be used to teach a colt his paces *distinctly*. You will observe numbers of horses, trained and ridden by little farmers and countrymen, which confuse and jumble the paces one into the other, shuffling between walk and trot, and trot and gallop, till they acquire a kind of racking pace, from which it is no easy task to reclaim them: or they will, perhaps, do one pace only. If the colt be unfavourably made forward, and it appear from the mal-conformation of his neck, and the ill setting on of his head, that he can never have a handsome carriage, double care must be taken to give him a well-tempered mouth, the only thing which can possibly render a horse, of this unfortunate description, tolerable.

Such as shew much blood, or stoop forward, and lounge in their gait, in the usual manner of bred cattle, ought to be well set upon their haunches.

The future goodness and value of the nag materially depend upon early tuition. If he be defective in bending his knees, let him be ridden daily in rough and stony roads; or if that fail, cause him to be ridden every day, for a month, or more, with blinds. Being blinded, he will naturally lift up his feet. I have experienced the use of it.

When a colt is refractory, it is usual to tame him, by riding him immoderately over deep earth. It is a silly custom, and often productive of great mischiefs, by weakening the tender joints of a young horse, breaking his spirit, or rendering it totally desperate. Coolness and perseverance are here the requisites; there is no horse with a stomach so proud, which a level course will not bring down.

The most proper period for breaking a saddle-colt, is the usual one, when three years old. In the common mode of performing this premier act of horsemanship, there is very little variation since BARET's days; or rather, it may be said, we have universally adopted his improved method. A head-stall is put upon the colt, and a caversane over his nose (from the old Italian word, *cavazzana*, Englished, by BLUNDEVILLE, cavetsan, or head-straine) with reins. He is saddled, then led forth with a long rein, and, in due time, lunged, or led around a ring, upon some soft ground. As soon as he has become tolerably quiet, he is mounted, a proper mouth and carriage given, and his paces taught. When sufficiently instructed, he ought (in general) to be dismissed, until the following spring; an early period for serious business.

There are some, who choose to defer breaking their colts until four years old, for which they often find just cause of repentance, in the strength and stubbornness of the horse; such practice would, however, be at least somewhat more safe, if a favourite method of mine were adopted, which is, to accustom colts to handling, to the halter and the bitt, immediately upon their weaning. For more, *see* BACKING.

BREAKING HERD, *among Sportsmen*, denotes a deer's quitting a herd, and running by itself. In which sense the word stands opposed to herding. A deer, when closely pursued, is loth to break herd. When a hart breaks herd, and draws to the thickets and coverts, he is said to harbour or take hold.

BREAKING UP A DEER, is the opening or cutting it up.

BREAM, is of two kinds; the one a salt, and the other a fresh-water fish, but are very little different from each other, either as to taste, shape, or nature.

The bream is a very broad shaped fish, and thick, scaled excellently, large eyes, a little sucking mouth, disproportionate to his body, and a forked tail.

It is a lusty, strong fish, so that you must be sure to have good tackling.

It hath two sets of teeth, is a very great breeder; the melter having two large melts, and the spawner as many bags of spawn.

That which I shall chiefly treat of, shall be the fresh-water bream; which at full growth is large, breeding either in ponds or rivers, but principally delighting in the former; which if he likes, he will not only grow exceeding fat, and fairer in them than in rivers, but will fill the pond with his issue, even to the starving of the other fish.

They spawn in *June*, or the beginning of *July*; and are great lovers of red worms, especially such as are to be found at the root of a great dock, and lie wrapt up in a round clew: also flag-worms, wasps, green flies, and grasshoppers (whose legs must be cut off), and paste; of which there are many sorts which are found very good baits for him, but the best are made of brown bread and honey; gentles, young wasps, and red worms. The best season of angling for him is from St. *James's* day until *Bartholomew* tide. For

BREAM FISHING, with hook and line, observe these directions; which will also be of use in carp-fishing.

Procure about a quart of large red worms, put them into fresh moss, well washed and dried, every three or four days; feeding them with fat mould and chopped fennel,

fennel, and they will be thoroughly ſcoured in about three weeks.

Let your lines be ſilk and hair; but all ſilk is the beſt: let your float be either ſwan quills or gooſe quills.

Let your bait be as big a red worm as you can find, without a knot; get a pint or quart of them in an evening in garden walks, or chalky commons, after a ſhower of rain; and put them with clean moſs well waſhed and picked, and the water ſqueezed out of the moſs as dry as you can, into an earthen pot or pipkin ſet dry, and change the moſs freſh every three or four days for three weeks or a month together: then your bait will be at the beſt, for it will be clean and lively.

Having thus prepared your baits, get your tackling ready and fitted for this ſport. Take three long angling rods, and as many more ſilk, or ſilk and hair lines, and as many large ſwan or gooſe quill floats. Then take a piece of lead and faſten them to the end of your lines. Then faſten your link-hook alſo to the lead, and let there be about a foot or ten inches between the lead and the hook; but be ſure the lead be heavy enough to ſink the float or quill a little under the water, and not the quill to bear up the lead, for the lead muſt lie on the ground. Note, that your link next the hook muſt be ſmaller than the reſt of your line, if you dare adventure, for fear of taking the pike or pearch, who will aſſuredly viſit your hooks till they be taken out, as I will ſhew you afterwards, before either carp or bream will come near to bite. Note alſo, that when the worm is well baited, it will crawl up and down as far as the lead will give leave, which much enticeth the fiſh to bite without ſuſpicion.

Having thus prepared your baits, and fitted your tackling, repair to the river, and where you have ſeen them ſwim in ſkulls or ſhoals in the ſummer time in a hot afternoon, about three or four of the clock, and watch their going forth of their deep holes and returning, which you may well diſcern, for they return about four of the clock, moſt of them ſeeking food at the bottom, yet one or two will lie on the top of the water, rolling or tumbling themſelves whilſt the reſt are under him at the bottom, and ſo you ſhall perceive him to keep centinel; then mark where he plays moſt and ſtays longeſt, which commonly is the broadeſt and deepeſt place of the river, and there, or near thereabouts, at a clear bottom, and a convenient landing-place, take one of your angles ready fitted as aforeſaid, and ſound the bottom, which ſhould be about eight or ten feet deep, two yards from the bank is beſt. Then conſider with yourſelf whether that water will riſe or fall by the next morning, by reaſon of any water-mills near, and according to your diſcretion take the depth of the place, where you mean after to caſt your ground-bait, and to fiſh, to half an inch; that the lead lying on or near the ground-bait, the top of the float may only appear upright half an inch above the water.

Thus you having found and fitted for the place and depth thereof, then go home and prepare your ground-bait, which is next to the fruit of your labours, to be regarded.

The Ground Bait.

Take a peck, or a peck and a half, according to the greatneſs of the ſtream and deepneſs of the water where you mean to angle, of ſweet groſs-ground barley-malt, and boil in a kettle, one or two warms is enough; then ſtrain it through a bag into a tub, the liquor whereof hath often done my horſe much good; and when the bag and malt is near cold, take it down to the water-ſide about eight or nine of the clock in the evening, and not before; caſt in two parts of your ground-bait, ſqueezed hard between both your hands, it will ſink preſently to the bottom, and be ſure it may reſt in the very place you mean to angle; if the ſtream run hard, or move a little, caſt your malt in handfuls a little the higher, upwards the ſtream. You may between your hands cloſe the malt ſo faſt in handfuls, that the water will hardly part it with the fall.

Your ground thus baited and tackling fitted, leave your bag with the reſt of your tackling and ground-bait near the ſporting-place all night, and in the morning about three or four of the clock viſit the water-ſide, but not too near, for they have a cunning watchman, and are watchful themſelves too.

Then gently take one of your three rods, and bait your hook, caſting it over your ground bait, and gently and ſecretly draw it to you till the lead reſts about the middle of the ground-bait.

Then take a ſecond rod and caſt in about a yard above, and your third a yard below the firſt rod, and ſtay the rods in the ground, but go yourſelf ſo far from the water-ſide, that you perceive nothing but the tops of the floats, which you muſt watch moſt diligently; then when you have a bite, you ſhould perceive the top of your float to ſink ſuddenly into the water; yet nevertheleſs be not too haſty to run to your rods, until you ſee that the line goes clear away, then creep to the water-ſide, and give as much line as poſſibly you can: if it be a good carp or bream, they will go to the farther ſide of the river, then ſtrike gently, and hold your rod at a bent a little while; but if you both pull together you are ſure to loſe your game, for either your line or hook, or hold will break; and after you have overcome them, they will make noble ſport, and are very ſhy to be landed. The carp is far ſtronger and more mettleſome than the bream.

Much more is to be obſerved in this kind of fiſh and fiſhing, but it is far fitter for experience and diſcourſe than paper. Only thus much is neceſſary for you to know, and to be mindful and careful of, that if the pike or pearch do breed in the river, they will be ſure to bite firſt, and muſt be taken. And for the moſt part they are very large, and will repair to your ground-bait, not that they will eat of it, but will feed and ſport themſelves amongſt the young fry that gather about and hover over the bait.

The way to diſcern the pike and to take him, if you miſtruſt your bream hook, for I have taken a pike a yard long ſeveral times at my bream hooks, and ſometimes he hath had the luck to ſhare my line, may be thus:

Take a ſmall blake, or roach, or gudgeon, and bait it, and ſet it alive among your rods two feet deep from the cork, with a little red worm on the point of the hook: then take a few crumbs of white bread, or ſome of the ground bait, and ſprinkle it gently amongſt your rods. If the pike be there, then the little fiſh will ſkip out of the water at his appearance, but the live-ſet bait is ſure to be taken.

Thus continue your ſport from four in the morning till eight, and if it be a gloomy windy day, they will bite all day long. But this is too long to ſtand to your rods at one place, and it will ſpoil your evening ſport that day, which is this:

About four of the clock in the afternoon repair to your baited place, and as ſoon as you come to the water ſide, caſt in one half of the reſt of your ground-bait, and ſtand off: then whilſt the fiſh are gathering together, for there they will moſt certainly come for their ſupper, you may take a pipe of tobacco, and then in with your three rods as in the morning: you will find excellent ſport that evening till eight of the clock; then caſt in the reſidue of your ground-bait, and next morning by four of the clock viſit them again for four hours, which is the beſt ſport of all; and after that, let them reſt till you and your friends have a mind to more ſport.

From St. *James*'s-tide until *Bartholomew*-tide is the beſt; when they have had all the ſummer's food, they are the fatteſt.

Obſerve laſtly, that after three or four days fiſhing together, your game will be ſhy and wary, and you ſhall hardly get a bite or two at a baiting; then your only way is to deſiſt from your ſport about two or three days; in the mean time, on the place you late baited, and intended to bait, you ſhall take a turf of green, but ſhort graſs, as big, or bigger, than a round trencher: to the top of this turf, on the green ſide, you ſhall with a needle and green thread faſten one by one as many little red worms as will nearly cover all the turf: then take a round board or trencher, make a hole in the middle thereof, and through the turf, placed on the board or trencher, with a ſtring or cord as long as is fitting, tied to a pole, let it down to the bottom of the water, for the fiſh to feed upon without diſturbance about two or three days; and after that you have drawn it away, you may enjoy your former recreation.

BREAST of a horſe. *See* COUNTER.

BREASTS, part of the bow of a ſaddle. *See* BOWS.

BREAST-PAIN, IN HORSES, is a diſtemper proceeding from a ſuperfluity of blood and other groſs humours, which, being diſſolved by ſome extreme and diſorderly heat, reſort downward to the breaſts, and pain them extremely.

The ſigns of the breaſt-pain are, a ſtiff, ſtaggering, and weak going with his fore-legs, beſides that, he can hardly, if at all, bow his head to the ground. To cure which, let blood in both the breaſt-veins, taking away at leaſt two quarts; then chafe his breaſt and fore-body with oil of Peter, that the blood may be drawn into the veins, and ſo eaſe the vital parts of their oppreſſion. After this, give him a pint of warm white-wine with two ounces of diapente; or, if the pain continues, which is very rare, you may rowel him.

BREAST-PLATE, is the ſtrap of leather that runs from one ſide of the ſaddle to the other, over the horſe's breaſt, in order to keep the ſaddle tight, and hinder it from ſliding backward when the horſe goes upon a riſing ground.

BREATH, OR WIND. This word ſignifies ſometimes the eaſy reſpiration of a horſe, and ſometimes it implies the eaſe and reſt or repoſe of a horſe.

As, give your horſe breath, do not ride him down: give that leaping horſe a long breathing time between the turns or repetitions of his manage.

This barb has always held his wind equally upon his manage.

This horſe is maſter of his wind or breath. This laſt expreſſion is applied to horſes that ſnort, and our jockies take ſnorting for a ſign of a long-winded horſe. *See* SNORT.

BREED, is a place where mares for breed, and ſtallions are kept, in order to raiſe a ſtud. Hence they ſay,

To keep a breed; to govern and manage a breed.

All the mares in this breed have taken; *i. e.* they are with foal.

To make a good breed, you cannot chuſe a better ſtallion than a *Spaniſh* horſe, nor better ſtud mares than *Naples* mares.

BREEDING OF HORSES. In order to the raiſing a good and beautiful race of horſes, it is neceſſary to chuſe for a ſtallion a fine barb, free from hereditary infirmities, ſuch as weak eyes, bad feet, ſpavins, purfineſs, cheſt foundring, *&c.* only with this diſtinction, that defects which happen by accident, are not to be accounted hereditary.

Having provided yourſelf with a ſtallion, let him be fed for three months before he is to cover the mare, with ſound oats, peas, or beans, or with coarſe bread and a little hay, but a good quantity of wheat ſtraw; leading him out twice a day to water; and after he has drank, walk him up and down for an hour; but not ſo as to make him ſweat.

If he is not thus put into heart before he covers, he would be in great danger of being purſey and broken winded, neither would he be able to perform the taſk; or at the beſt the colts would be but pitiful and weak; and notwithſtanding you have thus fed him well, you will take him in again very lean.

If you put him to too many mares, he will not ſerve long, his mane and tail will fall off through poverty, and you will find it a difficult taſk to recover him again for the year following.

Therefore let him have mares, but according to his ſtrength, that is, twelve, fifteen, or at moſt twenty.

Mares go with foal eleven months, and as many days as they are years old: as for example, a mare of ten years old will carry her foal eleven months, and ten days; ſo that a perſon may ſo order his mares to be covered, that their foals may be brought forth at a time when there will be plenty of graſs.

About the end of *May* put your mares into an incloſure capable of feeding them the whole time the ſtallion

lion is to be with them, or that they are in feason, in which inclofure all the mares are to be put together, as well thofe which are barren as others.

Firft take off your ftallion's hind fhoes, but let his fore fhoes remain on for the prefervation of his feet, then lead him forth, and let him cover a mare twice in hand to render him more calm and gentle; after which take off his bridle and turn him loofe to the reft, with whom he will become fo familiar, and treat them fo kindly, that at laft they will make love to him; fo that not one of them will be horfed but as they are in feafon.

In this inclofure there fhould be built a little lodge, into which the ftallion may retire to fecure himfelf from the fcorching heats; and in the lodge there fhould be a manger, to give him oats, peas, fplit beans, bread, or whatever elfe he likes beft; and he muft be thus entertained during the whole time he is with the mares, which will be about fix or feven weeks.

You muft likewife take care that the ftallion and the mare have the fame food, *viz.* if the former be at hay and oats, which is commonly called hard meat, the latter fhould likewife be at hard meat; otherwife fhe will not fo readily hold.

Mares which are very grofs, hold with much difficulty; but thofe that are indifferently fat and plump, conceive with greateft eafe.

To bring a mare in feafon, and make her retain, let her eat for eight days before fhe is brought to the horfe, about two quarts of hemp feed in the morning, and as much at night.

If fhe refufe it, mix it with a little bran or oats, and if the ftallion eats alfo of it, it will contribute much to generation.

As for the age of the ftallion, he fhould not cover before he is fix years old, nor after he is fifteen; but the laft may be regulated according to his ftrength and vigour.

As for the mares they fhould not be covered before they are three years old; but in this refpect you may take meafures from the goodnefs of the mares, and the foals that they bring forth.

In the laft place, you may furnifh yourfelf with young breeding mares from your own race; which being found, of a good breed, will bring forth more beautiful foals than any other. But you are not to make ufe of your colts for ftallions; becaufe they will much degenerate from the goodnefs of the true barbs, and at laft become like the natural race of the country.

It is therefore advifeable never to chufe a ftallion from your own breed; but rather to change him for a good barb or *Spanifh* horfe, yet ftill make choice of the fineft mares of your own ftock to breed upon.

BRIDLE, is fo termed when all its appurtenances are fixed together in the feveral parts of it for the government of a horfe, and they are thefe: 1. The bitt or fnaffle, which is the iron-work put into a horfe's mouth, of which there are feveral forts, which fee under the Article BITT.

2. The head-ftall, being two fmall leathers that come from the top of the head to the rings of the bitt.

3. Fillet, that which lies over the forehead under the foretop, if the horfe has trappings; this is ufually adorned with a rofe, or the like, or leather fet with ftuds, or braided.

4. The throat band, being that leather which is buttoned from the head band under the throat.

5. Reins, the long thong of leather that comes from the rings of the bitt, and being caft over the horfe's head, the rider holds them in his hands, whereby he guides the horfe as he pleafes.

6. The button and loop at the end of the reins, by which it is faftened to the ring of the bitt, the other end of the reins having only a button fo large that it cannot go through the ring of the bitt on the other fide; this is called a running rein, by which a horfe is led at a good diftance, and has liberty to leap a ditch, or mount a hedge.

7. The nofe band, a leather that goes over the middle of the nofe, and through the loops at the back of the head-ftall, and fo buckled under the cheeks; this is ufually adorned.

8. A trench.

9. A cavefan, being a falfe rein to hold or lead a horfe by.

10. A martingal, which is a thong of leather, the one end faftened under the horfe's cheeks, and the other to his girth between his legs, to make him rein well to caft up his head.

11. Chaff-halter; a woman's bridle is the fame, only it is double reined.

Our bridles, at prefent, are either CURBS, double and fingle, or SNAFFLES, either fingle, or accompanied with a CHECK-CORD and rein; the reins either brown or black leather, quite plain, the headftall without a nofe-band, or any ornament of ribband in front.

The curb-chain, and its application, is well known. The double bridle has two bitts, fnaffle and curb; the latter with checks moderately long, light, and thin, and with a joint, like the fnaffle, or whole, and known by feveral names, according to its form and effect.

The ufe of a CURB-BRIDLE, which, indeed, is generally the moft proper for road-fervice, is to bring the horfe's head in, to lift up his fore-quarters, and fet him fufficiently on his haunches. This, of courfe, contributes to his going light in hand, and fafely above the ground. The curb is to be ufed in thofe two paces, where ftride is to be repreffed, to wit, the trot and canter; in the walk and gallop, where a horfe cannot lunge out too far, the fnaffle is ever the moft fitting.

The proper way to ride with the curb bridle, is to hold both reins together, at difcretion, curbing the horfe no more than is abfolutely neceffary; for which reafon, the fingle curb-rein, with which the horfe's mouth finds no favour, is an unfair and foolifh contrivance. By being conftantly curbed, his mouth becomes fo cafe-hardened, that you are even where you fet out, if you intend an improvement; relieved indeed, it is true, from the mighty trouble of holding two reins.

It is neceffary to obferve carefully, that the curb-chain be not faftened above the fnaffle-rein, and that it be

hooked sufficiently loose, not to press too severely upon the horse's mouth.

The *snaffle*, it is remarkable, used to be formerly reckoned one of their severest bitts; at present, it generally signifies a mild one; although, it is true, we have *hard and sharp* ones for some horses, the benefit of which is very problematical. The check, is a cord in the place of the curb-chain, which compresses the under jaw, and is intended for a hard-pulling horse. This is chiefly in use upon the course. In swift action, whether it be gallop or trot, the horse must have the free use and extension of his neck and head. In a gallop, the curb lifts a horse up too much, and besides, he cannot pull fairly and well against it.

Our general practice of breaking colts with large and mild bits, is highly rational; and if sharp bits, of all kinds, were entirely excluded from our equestrian system, the change, in my opinion, would be full as much in favour of our own convenience, as of the feelings of the animal. If the mouth of a horse be already too hard, such rigorous means will surely never contribute to soften it.

The *martingale*, was invented two or three centuries past, by EVANGELISTA, a celebrated Professor of Horsemanship, at *Milan*. Its utility, in colt-breaking, is unquestionable. The running-martingale, only, is safe to ride with upon the road, and many people even hunt, and take their leaps with them. It is scarce possible to ride those horses without martingales (particularly in the summer season) which have acquired the troublesome habit of tossing up the head; nor do I know of any other means to reclaim them.

The English SADDLE is highly improved within the last twenty or thirty years, not only in respect of symmetry, fitness, and beauty, but of ease, both to the rider and the horse. But nothing has contributed so much, in the modern saddle, to the ease and convenience of the rider, as the forward projection of the pads, where the knees rest, and the situation of the skirts, or flaps, above and below the knee. It is true, the knees are apt to be galled in a long journey, by the stirrup-leathers, which are now placed without the long flap; but they may be occasionally drawn beneath it. The saddle is secured by two girths only, and those placed exactly one over the other, appearing as if single. The circingle is out of fashionable use, except upon the turf, and saddle-cloths are, at present, laid aside. As for the CRUPPER, nothing is deemed more unsportsmanlike and awkward; and whether from prejudice or not, I cannot help conceiting, it always detracts from the figure of the horse. Where a horse has a good shoulder, and the saddle fits him, a crupper is totally unnecessary; but I cannot commend the taste or prudence of those, who, to avoid the unfashionable appearance of a crupper, will submit to the risk of riding upon their horse's neck, or the trouble of dismounting every four miles, to replace their saddle. If a martingale also subsist in this case, it is truly a pitiable one. When it is absolutely necessary to submit to be cruppered, observe that the strap be very broad and soft, that it may not chafe the horse's rump; and that a candle be sewed up within that part which goes within the tail. For horses that are in danger of slipping through their girths, it is necessary to provide a breast-plate, which is fastened to the saddle.

We have had several late inventions respecting saddles, for which patents have been obtained; whose saddles, I believe, are constructed of whalebone, which are contrived by means of a screw, to contract or dilate, so as to fit any horse; but of the merits of these inventions, I am unable to speak, from my own experience.

BRIDLE-HAND, is the horseman's left-hand, the right-hand being the spear or whip-hand.

To swallow the BRIDLE, is said of a horse that has too wide a mouth, and too small a bitt-mouth.

BRILLIANT; a brisk, high-mettled, stately horse is called brilliant, as having a raised neck, a fine motion, excellent haunches upon which he rises, though never so little put on.

To BRIM, a sow is said to brim, or go to brim, that is ready to take boar.

BRING IN A HORSE, is to keep down the nose of a horse that bores and tosses his nose up to the wind; this we do with a good strong branch. *See* BANQUET *and* WIND.

BROCK, a term used to denote a badger.

A hart too of the third year is called a brock, or brocket; and a hind of the same year, a brocket's sister.

BROKEN-WIND, a disorder that a horse is subject to when he is suffered to stand too long in the stable without exercise; by which means he contracts gross and thick humours in such abundance, that adhering to the hollow parts of his lungs, they stop his windpipe.

Mr. LAWRENCE, speaking of pursiveness, asthma, and broken wind, says they are kindred diseases, or different stages of the same disease; and made the few remarks following, *viz.* "Broken wind is discovered by the quick and irregular heaving of the flanks, and a more than ordinary dilatation of the nostrils; sometimes also, by a consumptive appearance of the body. But the usual method of trying the soundness of a horse's wind, is, to cough him; which is performed by pressing the upper part of the wind-pipe, with the finger and thumb. The strong, clear, and full tone of the cough, prove his wind to be sound; if, on the contrary, the note be short, whistling, and husky, the horse is asthmatic, and unsound. Horses labouring under the worst stage of this disease, are styled, in the language of the repository, Roarers, from the noise they make in work, of very little of which they are capable. Broken-winded mares are generally barren, although I have heard of one, which bred a whole team of horses, after she became asthmatic. Some pensive and thick-winded horses, are, of all others, the strongest, and most thorough-winded. They catch their wind with difficulty at first; but it comes more free and clear, as their action increases.

In addition to the signs of confirmed broken wind, I have frequently observed a palpitation at the chest, and a considerable cavity there, with constant contraction and dilatation; but as I have said, if the horse be caused to move quick, the defect cannot possibly be concealed.

concealed. That which constitutes what is called a *Roarer*, is a defect in the *trachea*, or wind-pipe, it being of irregular form, or insufficient dimensions to admit a free passage for the air. Roarers will sometimes go with their noses pointed straight forward, and elevated.

Whoever desires to enter into a very minute investigation of the nature and causes of asthmatic diseases in horses, had better consult GIBSON, from whom most other writers on the subject have borrowed, and in general without having the honesty to acknowledge it.

Broken-wind is no doubt an appropriate malady of the domestic state, since in the natural it is unknown. I know not whether asses be subject to it; I suppose from their superior hardiness to horses, in consequence of less delicate treatment, they are not so open to the impression of cold.

Dr. LOWER attributed the broken wind of a horse to a relaxation, or rupture of the phrenic nerves, which cause the motions of the diaphragm. A friend of BARTLET, supposed the disease to proceed from a morbid or obstructed state of the glands, and membranes of the head and throat, the enlargement of which prevented a free passage to the wind. According to OSMER, "certain glands (called the lymphatics) which are placed upon the air-pipe, at its entrance into the lungs, are become enlarged, and thereby the diameter of the tube is lessened; hence the received air cannot so readily make its escape, nor respiration be performed with such facility as before; from which quantity of contained air, the lobes of the lungs are always enlarged, as may be seen by examining the dead carcases of broken-winded horses." But I think I can best explain the matter in the words of Dr. DARWIN; speaking of humoural asthma, he attributes it to "a congestion of lymph, in the air-cells of the lungs, from defective absorption."

In my ideas, a redundance of lymph being thrown upon the lungs, the quantity becomes too great for the capacity of the absorbent vessels, hence it stagnates and chokes up the air conduits, and the theatre of its action being more confined, of course respiration must be more difficult and laborious. The disease will thus be always in proportion to the obstruction in the air-cells.

The most general cause of broken wind, lies in alternate exposure to inordinate heat and cold.

I have often considered the idea of GIBSON, in respect to the too large size of the contained viscera, in proportion to the chest, and the difficulty thence of expansion to the lungs, as a cause of thick-windedness in horses, and am very far from thinking contemptuously of it. Be it remembered, that pursive horses demand a punctilious regularity in physic and exercise.

The disease may probably have arisen from want of timely evacuation, so that occasional physic and bleeding should not be neglected. Mercurial physic is indicated, being powerfully deobstruent, perhaps the saline course, from its diuretic effects, may be peculiarly useful in this case. A late writer on the asthma, seems to place the whole dependance for a cure, in the almost total abstinence from liquids. It would be madness to glut a broken-winded horse with water, but I never saw such take the smallest harm from a moderate proportion of it, frequently given; and perhaps the only reason why they are particularly greedy of drink is, because it is a received notion, that they ought to be kept without it. Give as little hay as possible, and that of the hardest and best kind, on the ground, or in a basket; mashes, and an extra quantity of corn. Carrots are specific in the case. If the patient be even but a middling cart-horse, it will pay to keep him to this regimen, instead of the common garbage diet. A constant run in upland pasture, where the bite is not too large, suits these horses best; but if once allowed this, there seems a necessity for it ever after, for if taken entirely into the stable again, their malady becomes intolerable. It is well known, although not always remembered, that asthmatic horses should be put to their speed by degrees, and that they are incapable of any violent extremes. Out of respect to the druggists, I shall set down a few prescriptions.

The following is BRACKEN's succedaneum for GIBSON's too expensive balls, and even this is expensive enough of conscience, in proportion to the good it is like to operate, although perhaps it would be difficult to contrive a better form. It must be remembered, that medicines intended to open obstructions in the lungs, have the whole tour of the circulation to make, and that they have not the power, as the farriers suppose, immediately to enter the doors of the disease, and eject the tenant.

Recipe. Half a pound cordial ball, if it be too dry, add half a pint fine Florence oil; balsam of Peru, two drachms; anisated balsam of sulphur, three drachms; flowers of benjamin, two drachms and half; make the mass with burdock seeds in fine powder. Give a ball the size of a pigeon's egg, when going out to exercise. If burdock seeds cannot be obtained, I suppose liquorice powder may be substituted; but it may be worth while in a regular stable to make a reserve of that seed, of which more hereafter.

Or, One pound cordial ball; powdered squills, and Barbadoes tar, two ounces each; make up the mass with honey.

Or, Antimony in the finest powder, eight ounces; brimstone powdered, four ounces; gum ammoniacum, pounded garlic, and hard sope, each four ounces; Venice turpentine, three ounces; aniseeds, bay berries, and linseed, in powder, two ounces each; make the paste with honey, and oxymel of squills. Give a ball daily for a month; omit a month, and then repeat, having a strict care as to regimen. This is my favourite form, but I do not promise it shall cure a broken wind; I will engage, however, that it will mitigate the symptoms of that disease, and render the horse more useful: it is also an excellent preventive when the danger is apprehended. Soften the ammoniacum by pouring a little vinegar upon it, letting it stand twelve hours; pick out any small stones or foulness, and pound it by itself; peel the garlic, add, and pound it with the gum.

Or, A course of tar-water, about four times the strength of the common; a quart or two given in the horse's drink.

The

The vitriol of copper, joined with emetic tartar, has formerly succeeded in a few instances of inveterate asthma, when every other known remedy had failed.

The case of pulmonary abscess in horses must surely be hopeless, as well from the common reason of the difficulty of effecting union of divided parts, where incessant motion takes place, as the consideration, that the constant labour expected from the horses still enhances the difficulty. If any remedy, it must be pure air in upland pasture; the patient to have no disturbance for at least twelve months. There are some few instances of a mare breeding, although evidently asthmatic, and with a discharge from the nostrils. La Fosse relates that a horse, in the worst stage of the glanders, covered a mare; and it is probable a glandered mare would breed.

BROOK HAWKING, is a sport that is managed with the gerfalcon and jerkin, the haggard falcon, and the tassel gentle.

There are in many places ponds enclosed with woods, bushes, and the like obscurities, so that they are concealed from passengers, and such places ducks much resort to.

For the training up a hawk to take them, observe the following directions:

The hawk being in all points ready to fly, be provided with two or three live train ducks, and let a man lie concealed in some bush by the pond with them; so that when you come to the place, and the hawk being ready for the sudden flight, beat the bush where the man lies concealed with the ducks, with a pole, who must send forth one of them, to the end that the hawk may think it is put up by you, and if she takes it with a courage reward her well.

This is the way to train up a goss-hawk to catch a fowl at sowce.

The hawk being trained to this, you may boldly go with her to the ponds where the fowl lies, and creeping close to the place raise them by beating about with a pole, and when any rise, let go your hawk from your fist, and if she seize, let her take pleasure thereon and reward her well.

It is very necessary to have a spaniel with you: for if the hawk is well acquainted with the sport, she will be so nimble at the catch, that they will fall into the water together, and by that means the fowl will go to plunge, so that then the spaniel will be of good service and will not displease the hawk.

BROOD, the young of fish or fowls. The brood of sea-fish is spawned, and lies in still waters, where it may have rest to receive nourishment, and grow to perfection; and here it is often destroyed by weirs, drawnets, or nets with canvass, or such engines at the bottom of them, in harbours, havens and creeks.

BROOK, a little river or small current of water; and is distinguished from a river, by flowing only at particular seasons, whereas a river flows at all times.

BROUILLER, is when a horse is put to any manage, plunges, traverses, and appears in disorder. Hence they say,

This gentleman is not master of his legs, he makes his horse brouiller, *i. e.* he makes him traverse and cast down his head, the spur being too hard for him.

BROW-ANTLER, that branch of a deer's horn next the head.

BRUISES of Joints in Cattle.—The cure: Anoint them with the oil of spike, then bind up the bruised or broken joint with a poultice, made of mallows, groundsel, and betony, beaten with hog's lard, and fried in it, applying it as hot as can be.

BUCK. In his first year, is called a fawn; the second, a pricker; the third, a sorrel; the fourth, a sore; the fifth, a buck of the first head; and the sixth, a great buck. This beast is common in most countries, being as corpulent as a hart, but in size resembling more a roe, except in colour: the males have horns, which they lose yearly; the females none at all. As for the colour, it is very different; however, they are mostly branded and sandy, with a black list all along the back. Their flesh is excellent for nourishment.

BUCK HUNTING. Having under the article HART treated largely, as to their nature, and the ways of hunting them, there needs the less to be said as to hunting the buck, and the rules for taking him; for he that can hunt a hart or stag well, will not hunt a buck ill.

Besides, fallow deer being common among us, and those usually in parks and enclosures of divers situations and statures, different from one another; it would be a difficult task to give instructions for every particular.

And indeed it is the proper business of every keeper of parks, &c. to understand the nature and craft of his deer in hunting; all which are to be acquired by experience more than reading; however I shall concisely inform you of what relates to buck-hunting as now practised.

There is no such skill and art required in lodging a buck, as in harbouring a hart or stag, nor so much drawing after, but you may judge by the view, and observe what grove or coppice he enters; for a buck does not wander up and down as the hart, nor change his layer so often, or use so many crossings, doublings, shifts, and devices, nor doth he flee so far before the hounds, but avoids the highway and open places, as much as he can; he is not so crafty or so strong to beat a river, or to stay so long at soil; neither is he so free to take a great river, nor must it be deep; but being close hunted, he will flee into such strong coverts as he is accustomed to, and it has been observed, that some bucks that have leaped over a park pale, after a ring or two, have returned of themselves, chusing rather to die where they have been acquainted, than in a strange place.

The buck groans and trots as the hart belleth, and with a worse noise and rattling in the throat; leaps lighter at the rut than the stag; neither will these two beasts come near one another's layer, and they have seldom or never any other relays, than the old hounds.

They also herd more than the hart does, and lie in the driest places, though if they are at large they herd but little from *May* to *August*.

Now

Now the greateſt ſubtlety a huntſman needs to uſe in hunting the buck, is to have a care of hunting counter or change, becauſe of the plenty of fallow deer that uſed to come more directly upon the hounds than the red deer does.

The doe begins to fawn about the end of *May*, and continues till *Midſummer*.

The bucks mew or ſhed their horns or heads every year about, or in *April*, and part of *May*, and their new ones are burniſhed about the end of *Auguſt*.

The buck makes his ſewmiſhing in divers manners and forms as the hart, according to the diverſity of food, and the time of the day, morning and evening, but they are moſt commonly round.

The buck comes in ſeaſon in *July*, and goes out in *September*.

The doe comes in ſeaſon when the buck goes out, and goes out at twelfth-tide.

In buck-hunting the ſame hounds are uſed as in running the ſtag. In foreſts and chaſes as they lie at layer, ſo they are hunted.

In parks where they are encloſed, the ſport is not ſo diverting, by reaſon of the greater change and ſoil, unleſs they break out and run the country, which they ſeldom do.

But deer that lie out, though near the park, make for the generality better chaſes than foreſt deer.

The Keeper ſhooting a BUCK *to be run down.*

In order to facilitate the chaſe, the keeper commonly ſelects a fat buck out of the herd, which he ſhoots to maim him, and then he is run down by the hounds.

As to the method of hunting the buck; the company generally go out very early for the benefit of the morning, ſometimes they have a deer ready lodged, if not, the coverts are drawn till one is rouſed; or, ſometimes in a park a deer is pitched upon, and forced from the herd, then more hounds are laid on to run the chaſe; if you come to be at a fault, the old ſtaunch hounds are only to be relied upon till you recover him again: if he be ſunk and the hounds thruſt him up, it is called an imprime, and the company all ſound a recheat; when he is run down, every one ſtrives to get in to prevent his being torn by the hounds.

Fallow deer ſeldom or never ſtand at bay.

He that firſt gets in, cries hoo-up, to give notice that he is down, and blows a death. When the company are all come in, they paunch him and reward the hounds; and generally the chief perſon of quality amongſt them takes ſay, that is, cuts his belly open, to ſee how fat he is.

When this is done, every one has a chop at his neck, and the head being cut off is ſhewn to the hounds to encourage them to run only at male deer, which they ſee by the horns, and to teach them to bite only at the head: then the company all ſtanding in a ring, one blows a ſingle death, which being done all blow a double recheat, and ſo conclude the chaſe with a general halloo of hoo-up, and depart the field to their ſeveral homes, or to the place of meeting; and the huntſman, or ſome other, hath the deer put acroſs the buttocks of his horſe, and ſo carries him home.

BULL: the male of the cow kind.

One bull ſuffices for fifty cows, ſome ſay ſixty. His beſt age is at two, or from one to three, before he arrives at full growth, when he grows heavy and ſluggiſh. Hence that old rule among countrymen:

He that will have his farm full,
Muſt have an old cock and a young bull.

From that time, being of no farther uſe in breeding, he is uſually gelt, and makes what they call a bull ſtag, in the North corruptly a bull-ſeg, to be fatted for the market. When theſe creatures are intended to breed, the better the land is, the larger ſort of beaſts are to be choſen, and the greater will be the profit. But of whatever ſort the breed is, the bull ſhould always be of the ſame country with the cow, otherwiſe it never ſucceeds ſo well. The bull ſhould be choſen of a ſharp quick countenance, with a forehead broad and curled, eyes black and large, long horns, a fleſhy neck, long and large belly, and ſmooth hair like velvet; his breaſt ſhould be large, back ſtraight and flat, buttocks ſquare, thighs round, legs ſtraight, and his joints ſhort. This ſort of bull is the fitteſt for breed, and makes the beſt oxen for draught, and likewiſe for fattening.

The cow ought to have a broad forehead, black eyes, great clean horns, the neck long and thin, the belly large and deep, the thighs thick, the legs round, and the joints ſhort; a white, large, and deep, udder, with four teats, and large feet. The ſize muſt be proportioned to the goodneſs of the land. *See* Cow.

BULL, Bannal, denotes a bull kept by a lord, who has a right to demand all his tenants to bring their cows to be ſerved by him.

BULL AND BOAR. By the cuſtom of ſome places, the parſon is obliged to keep a bull and boar for the uſe of his pariſhioners, in conſideration of his having tythes of calves and pigs, &c.

Bull that ſheds his ſeed.—Remedy.

Get clary-leaves, dry them and pound them to powder; then take the powder of tanner's bark and brown ſugar-candy, with two pennyworth of turpentine, and work the powders and the turpentine very well into balls as big as a great walnut, and give him two at a time, night and morning, and he will mend preſently.

BULL-DOG: one of the moſt fierce and ſtrong of the canine race, having the noſe ſhort, and the underjaw longer than the upper. The breed is in a manner peculiar to England: but, ever ſince the ſavage cuſtom of bull-baiting has happily been on the decline, it has ſuffered neglect. Such is the ſtrength and ferocity of theſe animals, that four of them have been known to maſter a lion; and when they are turned looſe on a bull, and have once properly ſeized him, nothing ſhort of the loſs of life, or the giving way of the part, can diſengage them. While that barbarous amuſement continued in vogue, various inſtances of ſavage fortitude have occurred in the feats of this breed, which would ſcarcely be credited in countries where the diverſions are more rational and elegant.

BULLFINCH, a cage bird; but has neither ſong nor whiſtle of his own, but is very apt to learn if taught.

BULLHEAD,

BULLHEAD, OR MILLER's THUMB; a fish that has a broad head, and wide mouth, with broad fins near the eyes, and has many under the belly; and instead of teeth, has rough lips, which assist him in napping at the bait: he has also fins on his back, and one below the belly, and his tail is round, and his body all over covered with whitish, blackish, and brownish spots: they begin to spawn about *April*, and are full of spawn all the summer season.

The manner of fishing for them is as follows:

The common abode or haunt of this fish is in holes, among stones, in clear water, in summer; but in winter they take up their quarters with the eels in mud. They are a simple and lazy fish, and are easily caught in summer, and you may see him in hot weather sunning himself on a flat gravelly stone, upon which you may put your hook, which must be baited with a very small worm near the mouth, and he will very seldom refuse the bait, so that the most bungling angler may take him. It is, indeed, an excellent fish for taste; but of so ill a shape, that many women do not care to dress it.

BURN in a bull's pizzle, or in a cow's matrix—For a burnt bull, you must first cast him and pull out his pizzle, then wash both his sheath and that with white-wine vinegar; then take the juice of houseleek, burnt allum, honey, and the juice of lettuce; blend all together, and anoint the bull's pizzle about three times, and he will mend.

And, for the cow, you may wash and anoint her bearing, and she will mend.

BURNISH: deer are said to burnish their heads, when rubbing off a white downy skin from their horns against a tree: they thrust them, as is said, into a reddish earth, to give them a new colour and lustre.

BURR, the round knob of a horn next a deer's head.

BURROCK, is a small weir or dam, where wheels are laid in a river for taking of fish.

BURROWS, holes in a warren which serve as a covert for hares, rabbets, *&c.*

BUSTARD, a kind of great sluggish fowl.

BUTTERS, is an instrument of steel, fitted to a wooden handle, with which they pare the foot, or cut the hoof of a horse.

BUTTON, of the reins of a bridle in a ring of leather with the reins passed through it, which runs all along the length of the reins. To put a horse under the button is, when a horse is stopped without a rider upon his back, the reins being laid on his neck, and the buttons lowered so fast down, that the reins bring in the horse's head, and fix it to the true posture of carriage. It is not only the horses which are managed in the hand, that must be put under the button, for the method must be taken with such horses, before they are backed.

CAD-BAIT, a worm, good bait for trout.

CADDOW, a bird, otherwise called a chough, or jack-daw.

CADENCE, is an equal measure or proportion, observed by a horse in all his motions, when he is thoroughly managed, and works justly at gallop, *terra a terra*, and the airs: so that his times or motions have an equal regard to one another: that one does not embrace, or take in more ground than another, and that the horse observes the ground regularly.

Horsemen say, This horse works always upon the same cadence; he follows the cadence; he does not change his cadence; he remains equally between the two heels.

He is fine and gentle in all his aids; and when put to the manage, he never interrupts his cadence.

This horse has so fine a mouth, and works with so much liberty in his shoulders and haunches, that he keeps his cadence with great facility: nay, he takes a very good cadence upon his airs, without stepping false, without jumbling, and works equally in both hands. *See* COUNTER-TIME and TIME.

CADEW, the straw-worm, an insect used as a bait in angling.

CADGE, a round frame of wood, upon which falconers carry their hawks.

CAGE FOR PARTRIDGES; a device to keep them in, and of which there are several sorts.

We shall begin with that invented to contain a hen partridge, and serves to call cock partridges to her in order to take them. *See* Plate III. Fig. 2.

This cage is pretty enough, takes up but little room, is very portable, and is little seen: 'tis made of an old hat, whose brim is cut of, and the bottom is wood, which shuts and opens, to put in and take out the partridge; and a hole must be made in the bottom of the hat, which is uppermost, through which the bird puts out its head to call.

You have also a hook at it, made of a thick iron wire, to hang the cage upon as there is occasion; and you must make one or two at the place marked V, to the end the bird may eat and drink; and therefore a piece of wood is fastened or nailed at the door below, of about half a foot in length, pointed at the ends, in order to fix it in the ground, that so the cage may be kept in good order when you have a mind to use it.

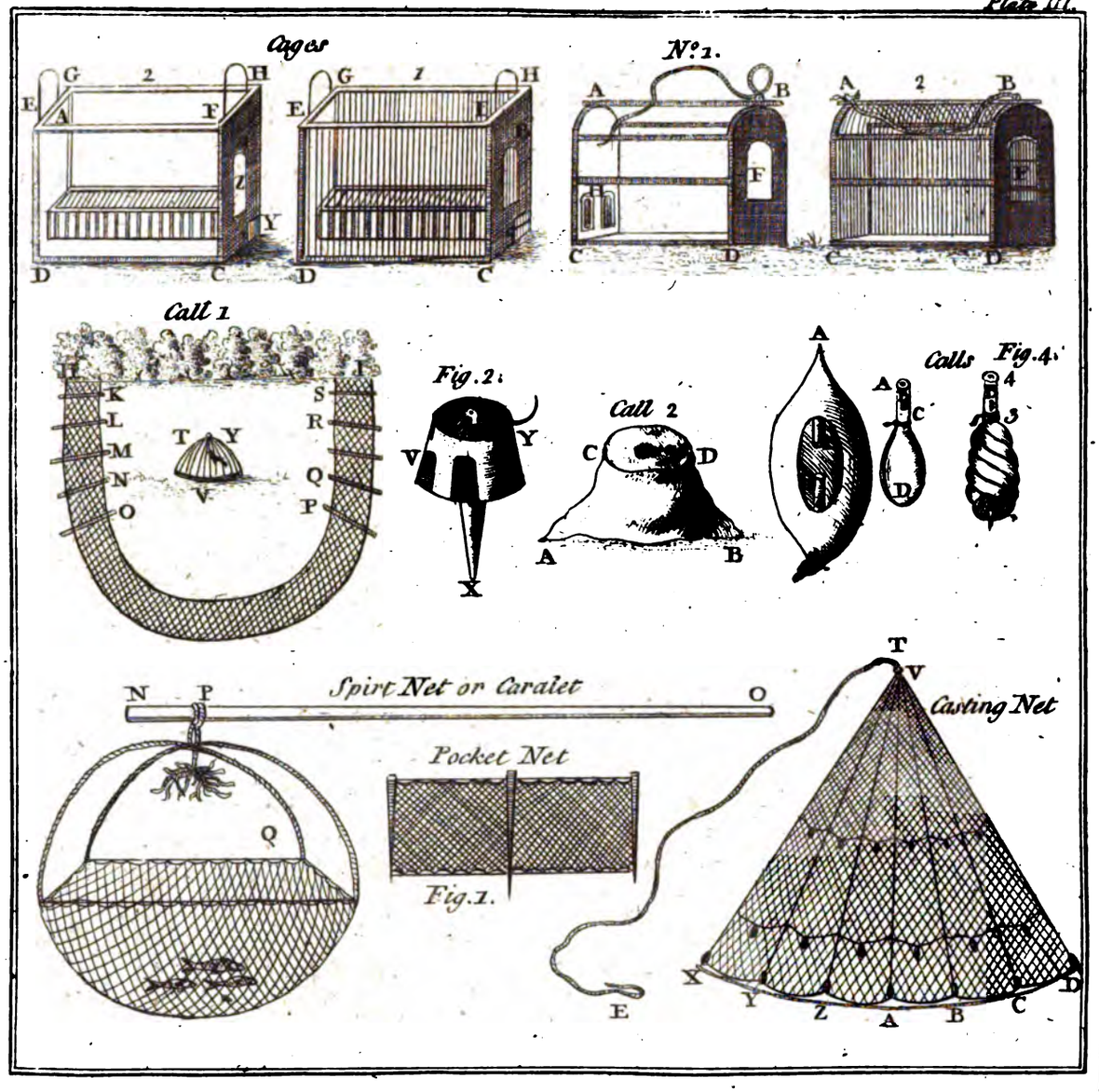
This sort of cage is very proper for the purpose designed.

And yet you keep the partridge in it only when you carry it to call: for in the day-time you are to keep them in a great cage, or room.

The following figures represent other sorts of cages; and the most common is that we are about to describe next, and may in short serve for a model to make others by.

The cage is made of two pieces of the bottom of a cask, marked with the letters AHC, and BGD, cut round at the top, AB.

They should be nine inches long, and a foot broad; they fasten them at the lower part to another piece of wood of the same breadth, and fifteen or eighteen inches in length: you have a lash, or small wooden ligature at top, marked with the letters AB, fifteen or eighteen inches long, and half an inch broad, and thick; which is nailed to two round boards, in order to keep them together: you must cover the void part of the cage with a green, or some dark grey-coloured cloth, inclining to brown, and tacked with small nails: leave two


Cages
No. 1.
Call 1
Fig. 2.
Call 2
Calls
Fig. 4.
Spirt Net or Caralet
Pocket Net
Fig. 1.
Casting Net

two or three holes at top, for the partridge to put her head through, when she has a mind to call or hearken.

A little door must be made at F, one of the end boards; for example, at that marked with No. I. that you may put in, and take out the birds: you must make two openings in the other board, as you see represented by the letter H, they must be long and narrow, that the partridge may be able to eat and drink: you must fasten a thong, girth, or cord, to the ends AB, and put the same about your neck, when you have a mind to carry the cage from one place to another.

You may observe the rest from Plate III.

We present you next with another very useful sort of cage for the bird, when wild, because she will struggle in the carriage, and be so fatigued when you come to the designed place (as has been frequently experienced) that she will not vouchsafe to call: so you must be obliged to set the cage on the ground, in order to use her the next morning; because a fox, or some other voracious animal, may kill the bird: here is a cage set forth by two figures; the second shews you the particular parts; and it is not yet covered with iron wire, as it ought to be when it is compleat: you therefore take the model by it.

You must take two boards, EGAD, and FHYC, each of them about fifteen inches square, and have two bows of thick iron wire, made like a door, or rather like the two boards at the ends of the preceding cage; nail both the boards at the ends of the two square boards, and fix a board over, of the same breadth as the other two, and a foot and a half square; in such a manner, that the side of the bows which is square, may be level with the great board; then sew the cloth over the two bows, in order to form a cage, quite the same as the second above; between the two boards, A K, B Y, so that the three boards are extended quite round about, three or four fingers breadth over; and pieces of wood, as at G H E F, must be placed at all the corners to keep the sides right, and bind the cloth in the middle; then cover the whole with brass or iron wire, of the thickness of a common little pin; and to accommodate your bird with food, you must have a small drawer, or little trough, with an eating and drinking-place, at the side C, between the cage and iron wire, at the little letter *a*; and therefore that cloth side of the cage adjoining to the feeding-place, must be open with bars, so distanced from each other, that the partridge may easily put her head between them in order to eat and drink.

CALADE, or BASSE: is the descent, or sloping declivity of a rising manage ground; being a small eminence, upon which we ride down a horse several times, putting him to a short gallop, with his fore-hams in the air, to make him learn to ply and blend his haunches, and form his stop upon the aids of the calves of the legs, the stay of the bridle, and the cavesson, seasonably given: for without those aids he would throw himself too much upon his shoulders, and not bend his haunches.

Horsemen say, Work your horse in a calade, after the *Italian* way; ride him straight, and then you make good use of the calade.

These calades will discourage your horse, and perhaps ruin his hams; for you have pitched upon too deep a declivity: and besides, you do not make the aids of the bridle accord with those of the calves of your legs.

CALF; the young of the cow kind, an animal too well known to require a particular description.

To breed calves to make young bulls, take no one that was calved within the prime, which is counted five days after the change of the moon; for then they are not good to keep, but to eat or to sell. Among a hundred calves, two are sufficient to keep for bulls; as for the rest, it will be best to geld them.

It will be well for husbandmen to rear as many calves as they can conveniently keep, in order to maintain their stock; and let these chiefly be those that may fall between *Candlemas* and *May*, for in that season their milk may be best spared, and by that time there will be sufficient grass to wean them, and by the winter following they will have strength sufficient to preserve them from being hurt among other cattle, if they have now and then some small help; and also by *June* the dams will be readier to take the bull, and to bring other calves in the times aforesaid; and, if a cow tarry till after *May* before she calves, the calf will be too weak the winter following, and the dam will not be so ready to take bull again, but thereby oftentimes grows barren. Also, to rear a calf after *Michaelmas*, and to keep the dam at her meat, as they do in some countries, would be expensive in the winter-time; and a cow abroad will give more milk with a little grass than with fodder, lying in the close house, or fed with hay or straw, remaining in the stall; for the dry and hard meat diminishes much more milk than grass. As for those husbandmen that have small pastures or none at all, they must do as they please; though, in my opinion, it would be better for them to sell their calves than to rear them, whereby they may save the milk for more profit, and the cow will rather go to the bull again. Also, if the husbandman goes with an ox-plough, it will be convenient for him to raise two or three cow-calves, to hold up his stock, and it will be the more profit; it is far better to wean calves at grass than at hard meat, if they were at grass before: those that can have several pastures for their kine and calves, are likely to do well, and rear with less cost than others. The weaning of calves with hay and water will make them have great bellies, because they do not stir so well therewith as with grass, and they will the rather rot when they come to grass; and in winter they should be put into houses, rather than to remain abroad.

CALF that scowereth—Take a pint of verjuice, and clay that is burnt till it is red, or very-well burnt tobacco pipes, pound them to powder, and searse them very finely; put to it a little powder of charcoal, then blend them together, and give it to the calf, and he may be expected to mend in a night's time.

CALF, to cut, the method is—Cause one to hold down his fore-part, then bind his hinder feet with some cord, half a yard asunder, also let his fore-feet be bound, and let the said holder set both his knees on the calf, nigh to his legs, and so cut him gently, and

anoint his flanks with fresh grease; then rub his reins with some cold water mixed with salt, and he will do well. Some geld their calves when they are young, and others let them run a year, or more, before they geld them, which is counted more dangerous. After they are gelt, keep them in good pastures, that they may be the readier and stronger to labour at three years. Also, if the calves be not gelded within one year, they will prove great. If there grows any imposthume after the gelding, burn his stones to ashes, and cast the powder thereon, and it will help him. Some are more astrologically given to observe seasons and planets, when the moon is in the decrease, and the sign from the place: in spaying, gelding, cutting, or letting blood, these signs are most dangerous, if the moon have power over them, as Taurus, Leo, Gemini, Virgo, and the latter part of Libra and Scorpio; also the two signs governed under Saturn, as, Capricorn and Aquarius; the rest are all good, as Aries, Cancer, Sagitarius, and Pisces; be sure, also, that the moon is not in them.

CALF, (among Hunters) a male hart or hind of the first year.

CALKINS, a sort of horse-shoes for frosty weather, and are apt to make horses tread altogether upon the toes of their hind feet, and trip; they also occasion bleymes, and ruin the back sinews; nevertheless, they are necessary in a time of frost; and it is more expedient that a horse should run such a risk, than the rider should be in continual danger of breaking his limbs.

Whenever there is occasion to use them, order the farrier to pare the horn a little low at the heel, and turn down the sponge upon the corner of the anvil, so as to make the calkin in the form of a hare's ear, which will do little damage; whereas the great square calkins quite spoil the foot.

Calkins, are either single or double, that is, at one end of the shoe, or at both: these last are deemed less hurtful, as the horse can tread more even.

CALL, (with Hunters) a lesson blown upon the horn to comfort the hounds.

CALLS, natural and artificial; a sport practised much during the wooing season of partridges, especially for taking cock partridges; for which they put a hen into a cage, to call and bring them near.

This way in general of taking them, is indeed laborious, and requires much exactness, as to the artificial part, in imitating their voices; and you can commonly pretend to take but one at a time.

Partridges begin to pair about *February*, or the beginning of *March*, if the weather is not cold, and continue in their wooing till the end of *July*.

A great many are of opinion, that you will destroy the breed, by taking the cocks in this manner; but it is a mistake, for they do more mischief to the hens they couple with, than good, hindering them to sit; and will break their eggs, if they can find them: and in the nest we often find but small coveys of young partridges, which happens so, because the cock being too hot, and too assiduously pursuing the hen that would lay, she cannot disengage herself from him, and get to her nest; and so chuses rather to lose her egg, than go thither in sight of the cock that would break all the rest.

It is further to be observed, that the cock never knows his hen's nest; and therefore 'tis more easy to take him when she sits; for believing she is lost, he goes to the first he meets with.

This sport may be practised every day during the aforesaid wooing season, from day-break until sun-rising, and from sun-setting until night.

The Figure, Plate III. Call I. represents the manner how to make them. Suppose the space from K to I, to be a hedge that incloses some piece of wheat, barley, or other grain; set your hen partridge in a thin, open, fine wire cage, so that she may be seen at a good distance out of the cage; the letters T V Y is the spot where she should be placed; then place your net called a hallier (*see* HALLIER) as you see it formed by the letters K L M N O P Q R S, each part about twenty feet distant from the cage, then retire behind the hedge: if any cock partridge on the ground calls, the hen will presently answer; nor will the cock fail to come to her; and five or six will sometimes come together, and fight with each other just under the net, which of them shall have the hen, until at length some of them find themselves entangled: you must not presently sally forth in this case, for perhaps some more may be likewise ensnared, nor can they soon disengage themselves.

The observing one caution will save a great deal of pains to the sportsman; and that is, let him never pitch in any place, but where he has heard some cock call; then pitch within sixty or eighty paces, that they may be within hearing of each other.

Let the cage be coloured green, and let the bars be at such a distance, that the hen may thrust out her head and neck to hearken and call; and if you have well trained her to this sport, she will be industrious at it.

But as for cages for partridges, the reader is referred to that article.

Having done with the natural calls, we proceed to the artificial ones.

The following figures represent the form of them, Fig. 3 and 4.

The first shews the outsides, the second the inside; they are best made of box, walnut-tree, or such kind of hard wood, and formed of the bigness of a hen's egg, with two ends, A B, bored through from end to end; and about the middle D C, there must be a hole about the bigness of a sixpence, hollowed within to the bottom, then have a pipe of a swan's quill, and the bone of a cat's foot, opened at one end, which you must convey into the hole A, and so thrust it in the hole D; the other end of the bone A, must be stopped; then take a goose quill opened at both ends, which must be put in at the hole B, until the end C be at the end D of the bone; then blowing at the end B, you make the noise as the cock-partridge does; which varies much from the call of the hen: and you must remove farther or nearer the end C of the quill, from and to the end of the bone B, until you have found the exact note; for it is not soon done: the call being fixed, and you expert

expert in the notes, get a net called a pocket net, the form of which is here described. Fig. 1. *See* QUAILS FOR OTHER CALLS.

To this net fix a pliant stick, of about four or five feet long; with which you may go abroad early in the morning, and late in the evening, or as occasion serves: when you hear a partridge call, you have the manner of pitching the net, and the placing yourself represented in Plate III. For example, suppose you hear the partridge call at A, hide yourself flat upon your belly at B, having planted your net just in the way or furrow, between yourself and the partridge, but within ten or twelve feet of the net; especially if there be any bush, or advantage of ground to shelter you. The way to set the net, is to tie the packthread, number 1, which passes into the buckle, number 2, of the net, into the end of the stick, which must be stuck in the ground: and so bending it like a bow, fasten the other thread to the said stick in the ground, to the other side, or furrow: having in like manner tied it to the end of the packthread, number 3, which passes through the buckle, number 4, so that the two buckles 2 and 4, may come pretty near each other; then take one end of the pocket net, number 5 and 6, and cast it over the bended stick, so that it may lie thereon: the other end may lie on the ground, in such manner, that if any thing endeavours to pass by that way, it must needs run into the net.

Every thing being in order, and hearing the partridge call, you must return two or three answers louder or softer according to the distance from whence you hear the call, only as loud as to be heard, and the partridge will presently make near you, then give him a soft call: when he has answered the first call, he will begin to run, and coming near the net, will make a little pause, and rush on, so that the upper part will fall on him, and entangle him; then take him out, and you may be able to take several after this method: but this way of taking them lasts only during the time of their breeding, which is *April*, *May*, *June*, and *July*.

There is another way of taking partridges with the call and a broad net: having found out your partridge with a call as aforesaid, pitch your broad net, which should be fourteen or fifteen yards long, and seven or eight deep; spread this over the ground near them, the length ways to them, then peg down the net on all sides, except that towards them, and raise it up in the midst, by a stick about four feet long, with a notch in the top, the better to hold the line or net from slipping; and bend the stick from the net to make it stiffer, which stick must be stuck into the ground the better to hold.

When you have in this manner fixed your net, you must either have a natural or artificial stalking-horse to drive them into your net, but the natural one is reputed the best, if trained up for the sport.

CANARY-BIRD, an admired singing-bird, of a greenish-yellow colour, that takes its name from the place from whence they came, *viz.* from the *Canary-isles*, and no where else; but of late years, there is a sort of birds, that are brought in abundance from *Germany*, especially from *Tirol*, and are therefore called *German* birds; being a much better sort than the other, though their originals are supposed to have been first brought from the same place.

These birds, that is, the cocks, never grow fat, and they cannot be distinguished by some country people from common green birds; though the canary-birds are much lustier, have a longer tail, and differ much in the heaving of the passages of the throat, when they sing.

But to make a right choice of this bird, and to know when he has a good song; in the first place, let him be a long bird, standing straight, and not crouching, but sprightly like a sparrow-hawk, standing with life and boldness, and not subject to be fearful.

These birds being so much esteemed for their pleasing song, are sometimes sold at a high price, more or less, according to the goodness and excellency of their notes, there being a great difference in them.

It is very advisable before you buy, first to hear them sing, for the buyer will then please his ears; for one fancies a song bird, another a very harsh bird, if he be not so sweet: though undoubtedly the best canary-bird, in general, is that which has the most variety of notes, and holds out in singing the longest.

In order to know whether a bird is in health before you buy him, take him out of the store cage, and put him in a clean cage singly, and if he stand up boldly, without crouching or shrinking in his feathers, and look with a brisk eye, and not subject to clap his head under his wing, it is a sign that he is in good health but yet he may be an unhealthy bird.

But the greatest matter is to observe his dunging; if he bolts his tail like a nightingale after he has dunged, it is a great sign that he is not in perfect health; though he may sing at present, and look pretty brisk, you may assure yourself, it will not be long before he will be sick; but if his dung be very thin like water, or of a slimy white without any black in it, it is a sign of approaching death.

When a canary-bird is in perfect health, his dung lies round and hard, with a fine white on the outside, and dark within, dries quickly, and the larger the dung is, the better, so that be long, round, and hard: but as to a seed-bird, he very seldom dungs so hard, unless he be very young.

Canary-birds are subject to many diseases, as imposthumes, which affect the head, and cause them to fall suddenly from the perch, and die in a short time, if not speedily cured.

The most approved medicine, is an ointment made of fresh butter and capon's grease, melted together, with which anoint the top of the bird's head, for two or three days together, and it will dissolve it, and cure him; but if you have let it alone too long, then after you have anointed him three or four times, see whether the place of his head be soft, and if so, open it gently and let out the matter, which will be like the yolk of an egg; when you have done this, anoint the place, and this will immediately cure him.

And if you find the imposthume at any time return, do as before directed; you must also give him figs, and in his water let him have a slice or two of liquorice, with white sugar-candy.

Some are ſo curious as to breed theſe birds in *England*, and they have excelled all others. For the ordering of theſe birds when they begin to build, or are intended for breeding, make a convenient cage, or prepare a room that may be fit for that purpoſe, taking care to let it have an opening towards the riſing of the ſun; where you muſt have a piece of wire, that they may have egreſs and regreſs at their pleaſure: when this has been done ſet up ſome brooms, either heath or frail, in the corners of it, opening them in the middle, and if the room be pretty high two or three yew-trees may be ſet up, but not too near, as the birds will not endure to ſee themſelves ſo near each other's neſts; as the cock and hen will be apt to fly on an hen that is not matched to them, when they ſee them near their neſt, which many times cauſes the ſpoiling of their eggs and young ones.

In the next place you muſt cauſe ſomething to be made ſo convenient, and of ſuch bigneſs as may hold meat a conſiderable time, that you may not be diſturbing them continually, and a proper veſſel for water alſo; and the place where the ſeed is intended to be put, muſt be ſo ordered that it may hang out of the reach of the mice, for they are deſtroyers of them: you muſt likewiſe prepare ſome ſtuff of ſeveral ſorts of things, ſuch as cotton, wool, ſmall dead graſs, elk's hair, and a long ſort of moſs that grows along by ditch ſides, or in the woods, for them to build their neſts with.

Dry them well before you put them together, then mingle all well, and put them up into a net like a cabbage-net, hanging it ſo that they may with eaſe pull it out.

You muſt alſo ſet perches about the room, and if it be large enough ſet a tree in the middle of it, that ſo they may take the more pleaſure; and always remember to proportion your birds according to the largeneſs of the room, and rather let it be under ſtocked than over ſtocked, for they are birds that love their liberty.

When you perceive them to begin to build and carry ſtuff, give them once a day, or in two days at leaſt, a little greens and ſome coarſe ſugar; for that will cauſe a ſlipperyneſs in the body, ſo that the eggs may come forth without injuring the birds: for they die many times in laying the firſt egg, which is a loſs to the breeder; firſt in reſpect to his firſt breed, then to the unpairing of the cock, to which you ought to put another hen, whether he will pair or no: but it would be much better if that cock was taken out, than ſuffered to continue in the breeding place, eſpecially if it be ſmall; but in a large place with ſeveral pairs he cannot do that injury, and it will be a difficult matter to diſtinguiſh which is the cock of that hen that died, and as difficult to take him in a large place, without doing more injury than the bird would do: ſo that it will be beſt to let him reſt till the end of the year: when if you leave but two or three pair together, it will be the beſt way to take him out, and match him with another hen, and then put him in again.

Beſides, when you find that they have built their neſts, the nets that have their breeding ſtuff in them may be taken away, for they will be apt to build upon their eggs with new ſtuff, if they do not ſet preſently.

As to the time of their breeding, it is uſually three times a year, *viz.* in *April*, *May*, *June*, and ſometimes in *Auguſt*: as for ordering the young ones, they muſt not be left too long in the neſts; for they are very apt to grow ſullen, and will not feed kindly; therefore they are to be taken out at about nine or ten days old, and put into a little baſket and covered over with a net, or elſe they will be apt to jump out upon the firſt opening of the baſket, and be hurt, if they fall down.

They muſt alſo be kept very warm for the firſt week; for they will be very tender, ſubject to the cramp, and not digeſt their meat, if they take cold.

And when they are taken from the old canaries, let it be in the evening, and if poſſible when the old ones are out of ſight; otherwiſe they will be very apt to take diſtaſte when they ſit again and have young ones, and ready at every fright to forſake both their young and their eggs.

As to the preparation of their meat; ſoak ſome of the largeſt rape-ſeed in water for twenty or twenty-four hours: but if the water be a little warm twelve hours may be enough, then drain the water from the ſeed, and put a third part of white bread to it, and a little canary-ſeed in flower, and mix them all together.

With a ſmall ſtick take up a little at the end of it, and give every bird ſome, two or three times over; for if you overcharge their ſtomachs at firſt, they ſeldom thrive after.

Remember that the old ones give them but a little at a time, and the meat they receive from them is warmed in the ſtomach, before they give it them, and then all rape is hulled, which lies not ſo hard at the ſtomach, as thoſe ſeeds which have the ſkin on.

Neither muſt their meat be made too dry; for then they will be apt to be vent burnt, as all ſeeds are hot.

It is obſervable, that the old ones conſtantly drink after they have eaten ſeeds, and a little before they feed their young ones: and they commonly ſit a quarter of an hour or more feeding them, to keep them warm, that the meat may the better nouriſh them; therefore when you have fed them, let them be covered up very warm, that their meat may the better digeſt.

The ſeveral names of theſe birds at different times and ages are; ſuch as are above three years old are called Runts, thoſe above two are named Eriſſes, and thoſe of the firſt year, that the old ones bring up are called Branchers; thoſe that are new flown and cannot feed themſelves, Puſhers; and thoſe that are bred up by hand, Neſtlings.

CANCELLIER, a term uſed in falconry, when a light flown hawk in her ſtooping turns two or three times upon the wing, to recover herſelf before ſhe ſeizes.

CANKER IN HAWKS, a diſtemper breeding in the throat and tongue, proceeding from foul feeding.

CANKER IN HORSES, is a very loathſome diſeaſe, which if continued long uncured, ſo feſters and putrifies the part, that it will eat to the very bone; and if it happens

happens to come upon the tongue, will eat it asunder; lighting upon the nose, it devours the gristle through; and if it comes upon any part of the flesh, it will fret and gnaw it a great breadth. It will be easily known, for the places where it is will be raw and bleed much, and a white scurf will often grow upon the infected part.

This disease may be caused many ways, either by the engendering of melancholy and foul blood in the body, by unwholesome meat, and by some sharp and salt humours, proceeding from cold not long before taken, which will render his breath very stinking.

CANKER IN THE FOOT OF A HORSE: this complaint is in general occasioned by neglect, in suffering the thrush (by its unchecked continuance) to assume a degree of inveteracy, corroding the surrounding parts, and consuming the frog by its acrimonious and penetrative property; promoting the growth of fungus in proportion to the destruction of parts originally sound.

The safest and most expeditious method of reducing this, will be by occasional applications of lint well impregnated with the following lotion:

Take of corrosive sublimate and Roman vitriol, of each one drachm; spirits of wine, one ounce; and spring-water, half a gill. Let the sublimate and vitriol be reduced to a very fine powder in a mortar; then add the spirits by small proportions; and, lastly, the water, keeping the whole closely stopped for use.

This being properly secured upon the part, till entirely subdued, the cure may be effected with dressing of the following precipitate digestive, and the surface afterwards hardened by washing with tincture of myrrh. Take of yellow basilicon two ounces; turpentine and black basilicon of each one ounce; and red precipitate (powdered very fine) half an ounce. The two basilicons to be melted together over the fire; when taken off, stir in the turpentine; and, lastly, when cool, add the precipitate, and let it be minutely incorporated upon a stone or marble slab.

CANKER IN THE HEAD OF A HORSE: this complaint is discovered by the rawness and yellow matter; to cure which, observe the following:

Take a pint of olive oil, three ounces of Burgundy-pitch, and an ounce of washed turpentine; put them all into a pipkin, and mix them together over a gentle fire; and, when they are mixed, add an ounce of verdegris, and boil them up to the thickness of a salve, ever keeping the matter stirring; make a plaister, and apply it to the canker, according to the advantage of the place where it is situated, having first rubbed off the scurf or scabs; and, if it happens to be in the nostrils, having washed it with a sponge at the end of a stick, dipped in salt and vinegar to cleanse it, warm the salve, and, dipping a feather therein, anoint the place afflicted with it when warm, and capable of sticking by the like application.

CANKER IN THE MOUTH OF A HORSE is frequently very troublesome from its situation, and sometimes productive of great disquietude by the length of its continuance; it generally originates in any excoriation or wound in the mouth, becoming foul, and containing a corroding slough (in the nature of a fitfast) that must be taken away or destroyed before a cicatrix can be formed to perfect a cure. Various ancient rules and prescriptions have been transmitted from generation to generation for the performance of this very elaborate business; some totally inadequate to the intent, and others so efficaciously powerful, as to render the remedy worse than the disease. To remove every degree of suspense, as well as prevent trouble and disappointment in the pursuits of far-fetched remedies, use the following method of cure.

Take borax and burnt allum, of each half an ounce; let them be reduced to a very fine powder, and dissolved in a quarter of a pint of boiling water; when cold add one ounce of styptic tincture, and let the parts be plentifully touched with the solution twice every day, till the slough comes away; when the cure may be completed, by touching occasionally with tincture of myrrh and white-wine vinegar equal parts.

CANKER, IN THE NOSE OF A HORSE: this complaint proceeds from a virulent humour contracted there, occasioned by inflammation: to cure this, or indeed one in any part of the body, observe the following remedy:

Take of white-wine vinegar, a quart; of roach-allum, two pounds; a pint of the juice of plantain; and as much of that of rue; with four ounces of honey; boil them to the consumption of a third part, and wash the afflicted part therewith, as hot as the horse can endure it, morning and evening, and the canker will decay within a fortnight.

CANKER IN DOGS; a distemper that seizes their ears, but does not much incommode them.

The cure: take two ounces of soap, the same quantity of oil of tartar, sulphur, sal-ammoniac, and verdegris, incorporate all together with vinegar and aqua-fortis, with this rub the parts affected and it will cure.

CANKER, IN PIGEONS, usually takes its rise from the cocks pecking and fighting one another; though some fanciers say, that giving them water in a metal or tin vessel, will bring on this disorder. In order to remove this, use the following:

Take burnt allum and honey, and rub the affected part every day; but, when this has not the desired effect, dissolve five grains of Roman vitriol in half a spoonful of wine vinegar, mix it with the former medicine, and anoint the part affected. Some people strip off the scurf and make it bleed, before they apply the remedy; but my opinion is, that the medicine is searching enough without that.

CANNON MOUTH OF A BITT, is a round but long piece of iron, consisting sometimes of two pieces that couple and bend in the middle, and sometimes only of one piece that does not bend, as in the cannon-mouth a *trompe*.

Cannon-mouths of all sorts are designed to keep the horse in subjection; and are so contrived that they rise gradually towards the middle, and ascend towards the palate; to the end that the void space left underneath may give some liberty to the tongue.

CAPARASSON, OR HORSE CLOTH, is a sort of cover for a horse.

For.

For led horses it is commonly made of linen cloth, bordered round with woollen, and enriched with the arms of the master upon the middle, which covers the croupe, and with two cyphers on the two sides.

The caparassons for the army are sometimes a great bear's skin, and those for stables are of single buckram in summer, and of cloth in winter.

CAPELET, a disease in horses, when the tip of the hock is moveable, and more swelled than ordinary; when it is small it does no great damage, but if it grow large it will be painful, and make a horse lose his belly.

Bruises and other accidents will frequently occasion them, but then they are of little consequence, and if washed with vinegar will soon subside. But if they grow naturally, and are found on both the elbows, or hocks, you may suppose that the blood is not good, and that some of the vessels are broken.

Suppuration should be used by rubbing the part with ointment; and, when a sufficient quantity of matter is formed, you should let it out with a lancet towards one side, and then a scar will be avoided. You may dress the wound with the following mixture:

Take of tincture of myrrh, turpentine, and honey, of each an equal quantity; apply it frequently: the relaxed skin should be bathed with equal quantities of vinegar and spirits of wine, to which a little oil of vitriol may be added.

When these swellings or tumours proceed from indisposition of blood, they are best let alone; for they will often wear away imperceptibly without any external applications; but if there is no appearance of their immediately subsiding, and they are like to prove tedious, disperse them by repellents, and use purges and diuretic medicines, for these will correct the blood, and carry off the superfluous juices.

CAPON, a cock chicken gelded as soon as left by the dam, that being the best time, if his stones be come down, or else as soon as he begins to crow. They are of two uses.

The one is to lead chickens, ducklings, young turkies, pea-hens, pheasants, and partridges, which a capon will do all together both naturally and kindly; and by means of the largeness of his body will cover and brood thirty or thirty-five of them.

Nay he will lead them forth more safely, and defend them much better against kites and buzzards than the hen.

Therefore the way to make him like them, is with a small fine briar, or else sharp nettles, at night, to beat and sting all his breast and nether parts, and then in the dark to put the chickens under him, the warmth of which will take away the smart, and induce him to be fond of them.

CAPRIOLES, are leaps that a horse makes in the same place without advancing, in such a manner, that when he is at the height of his leap, he yerks out with his hinder legs even and near. It is the most difficult of all the high manage. It differs from croupades in this, that in a croupade the horse does not shew his shoes; and from a balotade in this, that in a balotade he does not yerk out.

Your horse will never work well at caprioles unless you put him between two pillars, and teach him to raise first his fore quarters, and then his hind quarters, while his fore are yet in the air; for which ends you must give the aids of the whip and the poinson.

If you would teach your horse to make caprioles, and yerk out handsomely with his hinder feet, stay and help with your hand, and your heels.

This leaping horse takes to caprioles himself, for he makes equal leaps, and that upon the hand, *i. e.* without forcing the hand, and resting heavy upon the bridle. *See to* YERK.

CARACOL, is an oblique pace or tread traced out in a semi-round, changing from one hand to another, without observing a regular ground.

When horses advance to charge in battle, they sometimes ride up in caracols, to perplex the enemy, and make them doubtful whether they are about to take them in the front, or in the flank.

Caracol is a *Spanish* word; and in that language signifies the motion that a squadron of horses makes, when upon an engagement, the first rank has no sooner fired their pistols, but they divide, and open it into two half ranks, the one wheeling to the right, the other to the left, along the wings of the body, to the rear. Every rank observes the same order of firing; and turning or wheeling from the front to the rear, is called a caracol.

To caracol, is to go in the form of half rounds.

CAREER; this word signifies both the ground that is proper for the manage and course, and race of a horse that does not go beyond two hundred paces.

This barb makes a very good career, from pacing to stopping.

This *English* horse does not finish his career; that is, does not finish his course with the same swiftness; and does not move so short and swift at the middle and end as at the beginning.

This *Spanish* horse is fit for the ring; he has a short and swift career, and holds it an hundred paces.

CARP, is generally taken for the queen of fresh water fish; being subtle, and living longest of all fish (excepting the eel) out of its proper element.

Carp and loaches are observed to breed several months in one year, which pikes and most other fish do not. This is partly proved by tame and wild rabbits, as also by some ducks, which will lays eggs nine of the twelve months; there are ducks that lay not longer than about one month. And it is the rather to be believed, because you shall scarce or never take a male carp without a melt, or a female without a roe or spawn, and for the most part very much, and especially all the summer season; and it is observed, that they breed more naturally in ponds than in running waters, if they breed there at all; those that live in rivers, are taken to be much the better meat.

And it is observed, that in some ponds carps will not breed, especially in cold ponds; but where they will breed, they breed innumerably; ARISTOTLE and PLINY say, six times in a year, if there be no pikes nor pearch to devour their spawn, when it is cast upon grass, or flags, or weeds, where it lies ten or twelve days before it be enlivened.

The

The carp, if he hath water room and good feed, will grow to a very great bigness and length.

As the increase of carps is wonderful for their number, so there is not a reason found out, by any, why they should breed in some ponds, and not in others of the same nature for soil and all other circumstances: and as their breeding, so are their decays also very mysterious; I have known sixty or more large carps put into several ponds near to a house, where by reason of the stakes in the ponds, and the owners constantly being near to them, it was impossible they should be stole away, and when he has after three or four years emptied the pond, and expected an increase from them by breeding young ones, he had, as the rule is, put in three melters for one spawner, and found neither a young nor old carp remaining.

Janus Dubravius wrote a book of fish and fish-ponds, in which he says, that carps begin to spawn at the age of three years, and continue to do so till thirty: he says also, that in the time of their breeding, which is in summer, when the sun hath warmed both the earth and the water, and so apted them also for generation, that then three or four male carps will follow a female; and that then she putting on her seeming coyness, they force her through weeds and flags, where she lets fall her eggs or spawn, which sticks fast to the weeds, and then they let fall their melt upon it, and it becomes in a short time to be a living fish. It is thought the carp does this several months in the year, and many believe that most fish breed after this manner, except the eel: and it has been observed, that when the spawner has weakened herself by doing that natural office, that two or three melters have helped her from off the weeds by bearing her up on both sides and guarding her into the deep. It is thought that all carps are not bred by generation, but that some breed other ways, as some pikes do.

The physicians make the galls and stones in the head of carps to be very medicinal; but it is not to be doubted, but that in *Italy* they make great profit of the spawn of carps, by selling it to the Jews, who make it into red caviare, the Jews not being by their law admitted to eat of caviare made of the sturgeon, that being a fish that wants scales, and as may appear in *Levit.* xi. by them reputed to be unclean.

Much more might be said out of him, and out of Aristotle, which Dubravius often quotes in his discourse of fishes; but it might rather perplex than satisfy.

The haunts of river carp are, in the winter months, the broadest and most quiet parts of the river; but in summer they lie in deep holes, nooks and reaches, near some scour, and under roots of trees, hollow banks, and till they are near rotting, amongst or near great beds of weeds, flags, *&c.*

Pond carp cannot, with propriety, be said to have any haunts, only it is to be noted that they love a fat rich soil, and never thrive in a cold hungry water.

They breed three or four times a year, but their first spawning-time is the beginning of *May*.

Baits for the carp are all sorts of earth and dunghill worms, flag-worms, grasshoppers, though not at top, ox-brains, the pith of an ox's back-bone, green-peas, and red or black cherries, with the stones taken out.

Fish with strong tackle, very near the bottom, and with a fine grass or gut next the hook, and use a goose-quill float. Never attempt to angle for the carp in a boat, for they will not come near it.

It is said there are many carp in the *Thames*, westward of *London*, and that about *February* they retire to the creeks in that river; in some of which many above two feet long have been taken with an angle. *Angler's sure Guide*, 179.

Carp live the longest out of the water of any fish. It is a common practice in *Holland*, to keep them alive for three weeks or a month, by hanging them in a cool place, with wet moss in a net, and feeding them with bread and milk.

CARP-FISHING.

A person who angles for a carp, must arm himself with abundance of patience, because of his extraordinary subtilty and policy: they always chuse to lie in the deepest places, either of ponds or rivers, where there is but a small running stream.

Observe, that they will seldom bite in cold weather; and you cannot be either too early or too late at the sport in hot weather; and if he bite you need not fear his hold, for he is one of those leather-mouthed fish, that have their teeth in their throat.

Neither must you forget, in angling for him, to have a strong rod and line; and since he is so very wary, it will be proper to entice him, by baiting the ground with a coarse paste.

He seldom refuses the red worm in *March*, the caddis in *June*, nor the grasshoppers in *June*, *April*, and *September*.

This fish does not only delight in worms, but also sweet paste; of which there is great variety; the best is made up of honey and sugar, and ought to be thrown into the water some hours before you begin to angle; neither will small pellets thrown into the water two or three days before, be the worse for this purpose, especially if chicken's guts, garbage, or blood mixed with bran and cow-dung be also thrown in.

But more particularly, as to a paste very proper for this use, you may make it in the manner following: take a sufficient quantity of flour, and mingle it with veal, cut small, making it up with compound of honey; then pound all together in a mortar, so long, till they are so tough, as to hang upon the hook without washing off.

In order to effect which the better, mingle whitish wool with it; and if you keep it all the year round, add some virgin's wax, and clarified honey.

Again, if you fish with gentles, anoint them with honey, and put them on your hook, with a deep scarlet dipped in the like, which is a good way to deceive the fish.

Honey and crumbs of white bread mixed together, is also a very good paste.

To make carp fat, and very large: when your pond, in *April*, begins to grow very low in water, rake all the sides

ſides of it with an iron rake, where the water is fallen away; then ſow hay-ſeeds, at the latter end of ſummer there will be a good growth of graſs; which, when winter comes, and the pond begins to riſe by rain to the top, it will overflow all that graſs, and be a feeding-place for them, and make them exceeding fat. As for the way of taking a carp in a muddy pond, *ſee* TENCH.

In taking a carp either in pond or river, if the angler intends to add profit to his pleaſure, he muſt take a peck of ale grains, and a good quantity of any blood, and mix with the grains, baiting the ground with it where he intends to angle.

This food will wonderfully attract the ſcale-fiſh, as carp, tench, roach, dace, and bream.

Let him angle in a morning, plumbing his ground, and angling for a carp with a ſtrong line; the bait muſt be either paſte, or a knotted red worm, and by this means he will have ſport enough.

CARRY LOW; a horſe is ſaid to carry low, that has naturally a ſoft, ill-ſhaped neck, and lowers his head too much.

All horſes that arm themſelves, carry low; but a horſe may carry low, without arming; for when he arms himſelf, his neck is too ſupple, and he wants to evade the ſubjection of the bridle: but when he carries low, he has his neck ill-placed, and ill-made.

To carry well, or in a becoming poſture, is ſaid of a horſe, whoſe neck is raiſed, or arched, who holds his head high, without conſtraint, firm, and well placed.

To CARRY, (with Falconers) is a term uſed of a hawk; who is ſaid to carry, when ſhe flies away with the quarry.

CARRYING, (with Hunters) a term uſed of an hare; of which when ſhe runs on rotten ground, or in a froſt ſometimes, and it ſticks to her feet, the huntſmen ſay, ſhe carries.

CARROTS, after repeated experiments by members of the Agriculture Society, have been proved to be the beſt article for the feed of either horned cattle, ſheep, or deer.

CART-HORSES are well known to be of the largeſt and coarſeſt deſcription; their Belgic origin is well known. As it is the general opinion, that the ſaddle-horſe ought to be ſharp and frigate-built, ſo they hold that the cart-horſe ſhould be round, and (to borrow a lift from SMOLLETT) as bluff in the bows, as a Dutch fly-boat. Rotundity, or the form of carrying their ſubſtance in a horizontal poſition, ſeems to be the grand characteriſtic of Engliſh draft-horſes. They ſay, this make of the ſhoulder, is the beſt adapted to drawing along, or moving weights; farther, that it is not ſo liable to chafe with the collar, as the flat and deep form. Both BRACKEN and OSMER ſeem diſpoſed, in part, to controvert theſe poſitions, probably from their prejudice in favour of bred cattle. That large bred horſes would draw, there is no doubt; and it is true, that the ſuperior ſtrength and elaſticity of their tendons would enable them to make great exertions; but the article of groſs weight has a conſiderable degree of conſequence in this buſineſs, and experience ſeems to be decidedly in favour of nearly the preſent form and ſpecies of cart-horſe.

A very erroneous idea has prevailed, concerning cart-horſes, that provided they are big, heavy, and clumſy enough, all farther conſiderations are needleſs; on the contrary, it is both theoretically and practically true, that great abilities for draft muſt depend materially upon juſt proportion; and that four thorough-ſhaped horſes, will draw with facility, a weight which would puzzle five ordinary ones, although of equal, or even ſuperior ſize: a truth which they ought to reflect upon, who have a conſiderable number of thoſe animals to maintain.

A capital cart-horſe is not more than ſixteen hands high, with a briſk ſparkling eye, a light well-ſhaped head, and ſhort pricked ears, full cheſt and ſhoulder, but ſomewhat forelow; that is to ſay, having his rump higher than his fore hand; ſufficient general length, but by no means leggy; large and ſwelling fillets, and flat bones; he ſtands wide all-fours, but wideſt behind; bends his knee well, and has a briſk and cocking walk.

Many of the knights of the ſmock-frock and the whalebone, would ſhake their heads at my commending length in a cart-horſe; nevertheleſs nothing is more true, than that in the account of juſt proportion, length will not be forgot; and that not only length, but a certain degree of room and freedom of ſhape is abſolutely neceſſary to enable the horſe to make thoſe active ſprings, which contribute more than mere bulk, to the tranſlation of a maſs of weight. Your ſhort-legged, cloddy horſes, as they are ſtyled, are generally too ſluggiſh and ſlow, ſubject to greaſe, and thoſe diſorders ariſing from a thick and ſizy blood; but ſuch are preferable to the looſe, leggy, and weak-loined; the worſt poſſible ſhapes of draft-horſes.

The breeds of cart-horſes, moſt in faſhion in our iſland, at preſent, are the HEAVY BLACKS of the midland counties, the SUFFOLK PUNCHES, and thoſe of CLYDESDALE in North-Britain.

The firſt are thoſe capital ſized, and high-priced horſes, made uſe of by the brewery and diſtillery in London, and by the farmers of Berkſhire and Hampſhire, and a few other parts, where their teams form a conſiderable article of oſtentation and parade.

The SUFFOLK PUNCHES, which alſo extend to Norfolk, are low horſes, rather coarſe-headed, with indifferent ears, in general cheſtnut, (provincially ſorrel) fore-low, with deep and large carcaſes, and nimble walkers and trotters. They have ever proved themſelves the trueſt and beſt drawers in the world, as well as the hardieſt, and moſt uſeful cart and plough-horſes. Their nimbleneſs, it ſhould ſeem, is owing to their length and moderate ſize; and their immenſe powers in lifting weight, to the ſame cauſe, combined with the low poſition of the ſhoulder, which occaſions the weight to be acted upon, in a juſt and horizontal direction. Their ſuperiority over all other horſes, at drawing dead pulls, is no doubt, in ſome meaſure, owing to early training, as in no country is ſuch pride taken, in teaching horſes to draw; and it is well known, that a team of Suffolk horſes, the ſignal being given, will all down upon

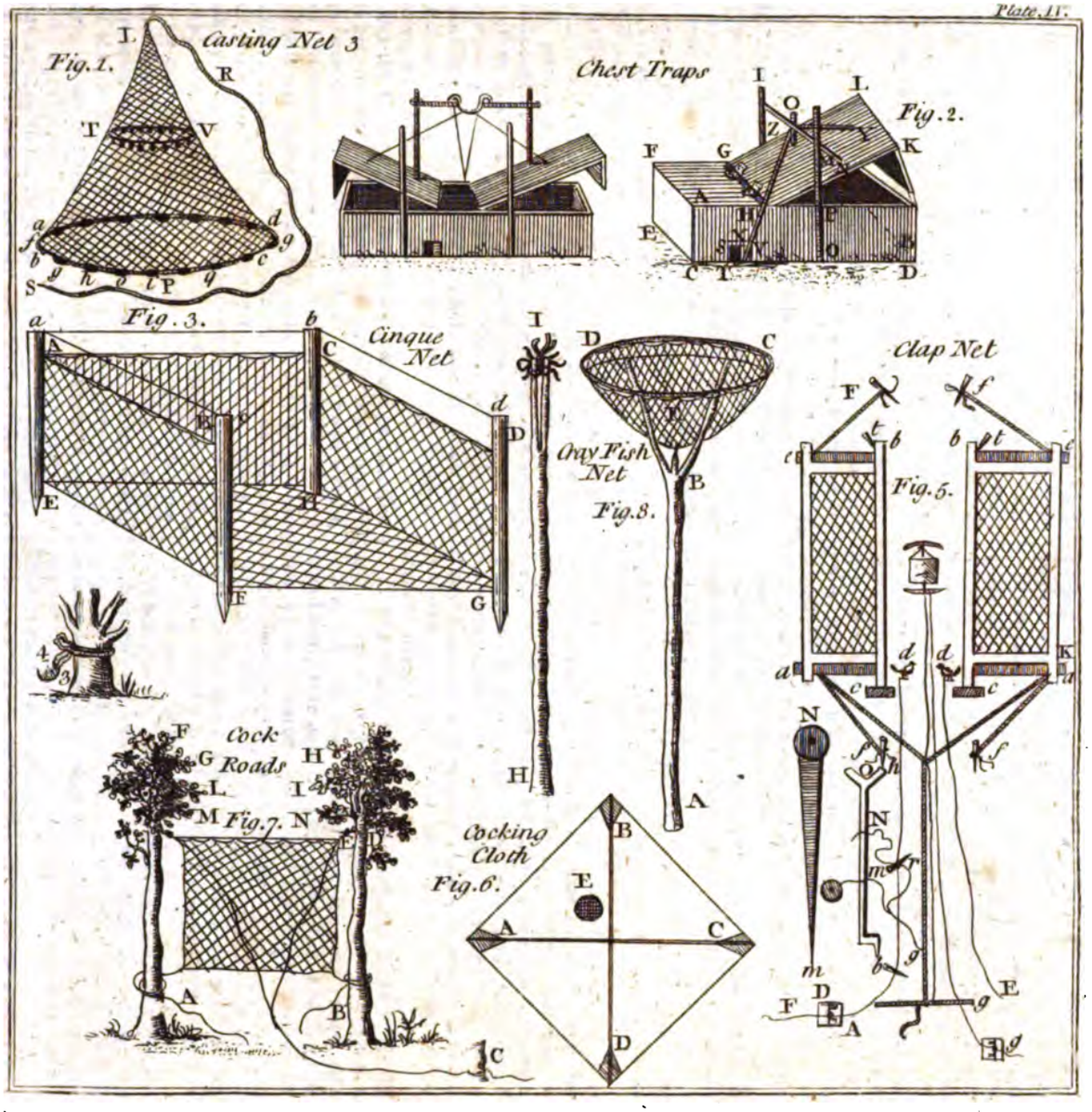


Fig. 1.
Casting Net 3
Chest Traps
Fig. 2.
Fig. 3.
Cinque Net
Crayfish Net
Fig. 8.
Clap Net
Fig. 5.
Cock Roads
Fig. 7.
Cocking Cloth
Fig. 6.

upon their knees, and leave nothing behind them, that is within the power of flesh and blood to draw away. As to draft-cattle, nothing need be done, but give those of Suffolk a fine head and ear, and flat legs, and we are then at the top of it.

But there is another breed of horses, in Suffolk and Norfolk, (how they came there, is somewhat difficult to ascertain) well fitted both for the saddle and draft. A cart-horse of this description, which, bating a little coarseness of the head, was perhaps as fit to get hacks and hunters, from proper mares, as the best bred horse alive. A Norfolk farmer, about forty years ago, had a peculiar sort, which he styled his Brazil breed. This blade of a farmer, would, it seems, unharness one of his plough horses, ride him to a neighbouring fair, and after winning with him a leather plate, ride him home again, in triumph, to his wife.

The late Mr. BAKEWELL, of Dishley, so justly celebrated for his hospitality, and the general humanity of his character, rendered the most eminent services to his country, by his improvements in live stock. If he failed in any thing, it was in his judgment of horses. Mr. BAKEWELL's chief attention was bestowed upon sheep and horned cattle. The black horse he shewed at TATTERSALL'S, some years since, for the purpose of getting saddle-horses, did not meet the approbation of intelligent breeders, nor did he appear at all calculated to suit the common run of mares.

Of the CLYDESDALE horses, take Mr. CULLEY's description, "probably as good and useful a draught-horse as any we are possessed of; larger than the Suffolk punches, being from fifteen to sixteen and half hands high, strong, hardy, and remarkable true pullers, a restive horse being rarely found amongst them. In shape, in general plain made about the head, sides, and hind-legs; mostly grey or brown, said to have been produced from common Scotch mares and Flanders horses, a hundred years ago."

But the size, rather than the sort, of our cart-horses, has become the chief object of consideration, since it has been the custom to breed them up to a ton weight, and seventeen and even eighteen hands high.

These over-sized horses are neither able to do, nor do they, more work than those of moderate size and true proportion: for in growing them up to this vast bulk, you gain only in beef, and WEIGHT TO BE CARRIED, but nothing in the size and substance of the sinews and muscles, the cords, levers, and pullies, which are destined to move their own as well as any extraneous mass. By this reasoning, it should seem, that the out-sized are unable to perform even so much work, as the middling; and another argument against them, equally just, is, that they must, in general, consume a proportional larger quantity of every necessary.

I must also beg leave to refer all breeders to Mr. CULLEY's book before-mentioned, where they will find it recommended to mix even a little racing blood, with the cart-stock; and where they may read of the wonderful exertions, in carting-business, upon the road, of the CLEVELAND BAYS, a sort of coach horses. Although bred horses are, of all others, the most sluggish, yet it is well known, that a mixture of their blood gives spirit and activity to other races. Although these half-bred cart-horses may perform well in light work, and upon hard roads, they may not be so well calculated for stiff clays and heavy sands.

There is also a very material idea, with which I wish earnestly to impress the minds of all breeders of draft-cattle; it is, that in breaking the colt, they always teach him to back readily, and to go quietly in the shafts. Every man who has had much to do with cart-horses, well knows the abuse, and the miseries they suffer, when they have not been taught to back; and also the trouble and fuss there is in a press of business, because, truly, Ball is too modest to go before, and Whitefoot, peradventure, too ambitious to go behind; whereas, they should be all so far accustomed, as, at least, to make a decent shift in any place.

There are horses, whether from some latent and internal weakness, or whatever occult cause, which never can be forced by the utmost severity, to strain at dead pulls, and yet in all ordinary business, and where the weight follows freely, and is in obvious proportion to their powers, they may be as good, and as serviceable horses, as any in the world.

CASTINGS, (in Falconry) a term by which is understood any thing that is given an hawk, to cleanse and purge his gorge.

CASTING, OR OVERTHROWING, A HORSE: the way to do this, is to bring him upon some even ground, that is smooth and soft, or in the barn, upon soft straw; then take a long rope, double it, and cast a knot a yard from the bow; put the bow about his neck, and the double rope betwixt his fore-legs, about his hinder pasterns, and under his fetlocks; when you have done this, slip the ends of the rope underneath the bow of his neck, and draw them quick, and they will overthrow him; then make the ends fast, and hold down his head, under which you must always be sure to have store of straw.

If you would brand a horse on the buttock, or do any thing about his hinder legs, that he may not strike, take up his contrary fore-leg; and when you brand him, take care the iron be red hot, and that the hair be both seared away, and the flesh scorched in every place, before you let him go.

CASTING-NET: there are two sorts of these fishing-nets, but much alike in use and manner of casting out, wherein the whole skill of the working consists. *For the Figure, see the Plates* III. *and* IV.

When this net is exactly thrown out, nothing escapes it, bringing all away within its reach, as well weeds, sticks, and such like trash; but it is thereby often broke, therefore you must be careful in what bottoms you cast, and how it is cast off, that the net may spread itself in its due dimensions.

Draw a loop, S, Plate IV. Fig. 1. of the main cord, over your left arm, and grasp with your left hand, all the net from T to V, about three feet from the bottom, where the leads hang, and let the leads just rest on the ground: with your right hand take up about a third part, as from D to L, and cast it over your left shoulder, like a cloak: then take another third part, from A to I, in your right hand, and let the residue remain

hanging down: when you have done this, ſtand upright, and being at the place where you intend to caſt it off, incline yourſelf firſt, a little towards the left hand, that you may afterwards ſwing yourſelf about to the right with the greater agility, and then let the net launch out into a pond: but take care that the threads, or meſhes of the net be not entangled with your buttons, leſt you be in danger of being drawn in after it.

CASTREL, } a kind of hawk which much reſem-
KASTREL, } bles the lanner in ſhape, but as to ſize is like the hobby: her game is the growſe, ſhe will alſo kill a partridge; but yet is a bird of a very cowardly nature, a ſlow goer aforehead, and therefore not much in uſe.

CAT, is a beaſt of prey, even the tame one; and ſaid to be of three kinds. 1. The tame cat. 2. The wild wood cat. 3. The mountain cat. The tame or domeſtic cat is diverſified with an almoſt infinite variety of colours and ſtreaks; but the natural colour, in a wild ſtate, is a brown tawney, variegated with ſtreaks of a whitiſh colour. In *France*, the cats are of a blueiſh lead colour, and in the north of *Europe* they are all over white.

All which are of one nature, pretty much of the ſame ſhape, but differ in ſize; the wild cat being much larger than the tame, and the mountain cat is larger than the wild cat.

The tame cat is a creature ſubtle and watchful, very familiar and loving to mankind, and an enemy to rats, mice, *&c.* which it ſeizes on as its prey.

Theſe animals uſually generate in the winter ſeaſon, making a great yawling or crying; go fifty-ſix days, or eight weeks, with young; bring forth ſeveral at a time: they cover their excrements, and love to keep their old habitations. *See* POLE-CAT.

CATARACT, is a malady in the eyes of an hawk not eaſily removed; and ſometimes incurable, when it is too thick, and of a long continuance.

It proceeds from groſs humours in the head, which frequently do not only dim, but extinguiſh the ſight; and ſometimes the hood is the cauſe of this miſchief.

The cure is to be effected, by ſcouring her two or three days with aloes or agaric: then take the powder of waſhed aloes, finely beaten, one ſcruple, and two ſcruples of ſugar candy; mingle theſe together, and with a quill blow it into the hawk's affected eye three or four times a day.

This is the gentleſt, and moſt ſovereign medicine of any yet known; but if this will not do, you muſt uſe ſtronger remedies, as the juice of celandine-roots, bathing their eyes often with warm roſe-water, in which the ſeed of fenugreek has been boiled.

CATARACTS are alſo called moon eyes, and lunatic eyes. About the age of five or ſix, the ſymptoms of a lippitude come on; they continue to come and go while the cataract ripens, which is uſually two years: at this time all pain in, and running from the eyes abates, and the horſe goes blind.

Sometimes the cataract forms itſelf without any preceding lippitude; it is then called a dry cataract; in this caſe the eye is not ſhut up with the ſwelling, but it appears cloudy, and the horſe cannot ſee very diſtinctly.

Sometimes the eye appears ſunk, and as if it was waſting; then the cataract is uſually a long time in forming, and the other eye, for the moſt part, continues good, though in all other inſtances, when one eye goes, the other ſoon follows.

A cataract differs in colour; for if ſometimes is white, pearl-colour, yellow, black, or greeniſh.

Dr. BRACKEN is of opinion, that only the two former of theſe are curable, and that not by any outward or inward application; but by manual operation with the needle, which turns off the laminæ of the cryſtalline that are diſeaſed, and then the rays of light are admitted through the remaining parts. If other methods are uſed, be they what they will, they may ſometimes help his ſight, ſo as to keep him out of ditches, and from running againſt walls, or ſuch like, but they will never cure a cataract. In ſhort, the only certain cure for cataracts, is to perform the operation called couching. But this cannot be performed by any but an expert ſurgeon, who underſtands the anatomical part of the eye, and who has been well uſed to the practice.

CATARRHS, IN SWINE: a diſorder to which they are frequently ſubject: the following are eſteemed the moſt effectual methods of cure:

Bruiſe liverwort, hen's dung, red ochre, dried ſloes, and polypodium root; boil them well in fair water, and give it warm, morning and evening, for two or three days.

Take half an ounce of brimſtone, and as much Burgundy pitch, hold his head by force over them whilſt burning on a chaffing-diſh of coals, after which give a drench of garlic, pepper, and rue, boiled in new ſmall-beer.

CATARRHS, IN SHEEP. *See* COUGH.

CATTLE, their good or bad qualities to diſcover. Upon view, if you ſuſpect any defect, gripe hard with your hand, on the back or withers, behind the ſhoulder, and this griping will cauſe ſo ſenſible a pain, if unſound, that the beaſt will ſhrink or tremble, ill enduring your gripe or pinch, and be ready to fall; but, if ſound and healthy, it will not flinch, or but very little.

If you buy lean cattle for fattening, ſee they are young; for, if old, they will not prove well, but rather your money and charge will be caſt away to little or no advantage. And, to know this, obſerve they are ſmooth, and often lick themſelves, that they want not their teeth, that their hides be thick and firm, ſhoulders and ribs broad; and, if the hair of their tail be broken, they will not feed kindly, but rather dwindle than increaſe in fleſh or fatneſs.

CATTLE, to fatten: the following is not only a cheap, but a ſpeedy method.

Put them into an agreeable paſture, and, as the ſeaſon is, give them chaff, rapes of grains, with the duſtings of meal, ſometimes chopped peaſe-hawm, offal turnips, cabbage or colewort leaves; if you perceive their ſtomachs fail, boil colewort leaves in vinegar or ſtale beer grounds, and drench them with it, and it will recover

recover their appetite, and make them feed roundly; water them twice a-day at least, if in winter, if you have an opportunity; but warm the water, and sift some bran into it; and, to make them healthful, bruise cummin and anniseeds, or carraway-seeds, and boil in their water once in four or five days. When they are housed, keep their stalls dry and hard under foot, paved with stones or gravel, and sloping, that the urine may run away; and have the windows to open, that they may have fresh air in such convenient quantities as the season requires; and by this usage they will soon become fat.

CATTLE, afflicted with an unknown inward disorder, to cure:

If you cannot find out the disease of the beast, take a quart of ale, a handful of wormwood, a handful of rue, and a handful of rosemary; all being bruised in a mortar, and then boiled, strain the herbs forth very well, and add two spoonfuls of the juice of garlic, as much of the juice of houseleek, and as much London treacle: mix them together, and give it to the beast milk warm.

Under cattle some include all quadrupeds which associate, or go in herds, as sheep, oxen, hogs, horses, *&c.* Others define cattle to be all tame animals which graze: cattle are sometimes divided into great, comprehending oxen, bulls, cows, calves, horses, *&c.* and small, including sheep, lambs, goats, *&c.* BLACK CATTLE implies all of the Ox kind.

CAVALIER. One that understands horses, and is practised in the art of riding them.

CAVEZON, a sort of nose-band, either of iron, leather, or wood, sometimes flat, at other times hollow or twisted, put on the nose of a horse, to wring it, and so forward the suppling and breaking of the horse. An iron cavezon is a semicircle or band of iron, consisting of two or three pieces jointed by hinges, and mounted with a head stall, a throat band, and two straps or reins with three rings; when we mean to make a horse walk round a pillar, through the two side rings we pass the two reins, which the rider holds in his hand, or makes fast to the saddle, in order to keep the horse's head in subjection, *&c.*

CAUTING-IRON, an iron with which farriers sear those parts of a horse that require burning.

CAWKING-TIME, (in Falconry) a hawk's treading time.

CHACK, OR BEAT UPON THE HAND; a horse is said to chack, or beat upon the hand, when his head is not steady, but he tosses up his nose, and shakes it all of a sudden, to avoid the subjection of the bridle. In order to fix and secure his head, you need only to put under his nose-band a small flat band of iron bended archwise, which answers to a martingal.

A CHASE, is a station for wild beasts of the forest: from which it differs in the following respects; that it may be in the possession of a subject, which a forest, in its proper and true nature cannot; neither is it commonly so large, nor endowed with so many liberties, at the courts of attachment, swainmote, justice seat of eyre, *&c.* On the other hand, a chase differs from a park, for that it is of a larger compass, having a great variety of game, and more overseers, or keepers. —For beast of the chase, and the terms used, see the Article TERMS.

What sort of Chase is most proper first to train a Hunting-horse to.

Some would have a horse that is designed either for a buck-hunter or fox-hunter, to be used at first, and trained up in that sort of exercise; others are of opinion, that those chases are too violent for a young horse, and therefore chuse to train him after harriers: which last seems to be the most eligible.

As for the stag, buck, and hind, there is not much difference in the hunting of them; so that the inconveniences from each chase are in a manner the same also: for whichsoever you hunt, it is either in covert, or at force.

If a deer be hunted in a park, they usually chuse the most woody parts of it, as a refuge from the pursuits of their enemies; which is both unpleasant to the rider, and troublesome to the horse to follow the dogs through the thick bushes; and besides, in parks the ground is usually full of mole-banks, trenches, *&c.* which is dangerous for a young horse to gallop on, till he has attained to some perfection in his stroke.

But if they be turned out of the park, and hunted at force, you will find, that as soon as you have unharboured or rouzed them, they will immediately make out end-ways before the hounds, five or six, nay sometimes ten miles; they following in full cry, so swiftly, that a horse must be compelled to run up and down hill without intermission, leaping hedge, ditch, and dale; nay, often crossing rivers to the great danger of the rider, as well as of the horse. So that it should seem altogether improper to put a young horse to such violent labour at the first, till he hath been inured to hard service by practice and degrees.

And besides, the season for these chases beginning about *Midsummer*, and ending at *Holyrood-tide*, is a part of the year in which the sun's heat is excessive; that besides the swiftness and violence of this chase, and the danger of cracking his wind, and bursting his belly; (and the straining of his limbs by such desperate riding, and creating in a young horse a loathsomeness to his labour, by undergoing such violent and unusual service;) the sun's excessive heat does so scorch the earth, that a violent chase would hazard the melting of his grease: and the weight of the rider, by reason of the hardness of the ground, would occasion foundering, splints, and windgalls; insomuch, that in a short time the horse would prove altogether useless.

Horses employed in this violent exercise, should be such as have been trained to hunting by long practice and experience.

Young horses, (says the Duke of NEWCASTLE) being as subject to diseases as young children, therefore he advises, that any man that would buy an horse for use in his ordinary occasions, as for journies, hawking, or hunting, should never buy a horse till the mark be out of his mouth; and if he be sound of wind, limb, and sight, he will last eight or nine years, with good keeping,

and never fail you: and therefore, (he adds) I am always ready to buy for ſuch purpoſes, an old nag, of ſome huntſman or falconer, that is ſound, and that is the uſeful nag: for he gallops on all grounds, leaps over hedges and ditches; and ſuch an one will not fail you in your journey, or any where, and is the only nag of uſe for pleaſure or journey.

The next chaſe is that of the fox; which although it is a recreation much in uſe, and highly applauded by the generality of the nobility and gentry, yet is inconvenient for the training a young horſe; it being ſwift without reſpite, and of a long continuance too; both which are diſtaſteful to the horſe: but the greateſt incovenience that happens to a horſe in this caſe is, that when a fox is unkennelled, he ſeldom or never betakes himſelf to a champaign country, but remains in the ſtrongeſt coverts and thickeſt woods: ſo that a horſe can have but little pleaſure in accompanying the hounds, without the riſk of being ſtubbed, or ſome ſuch dangerous accident.

The fitteſt horſes for this chaſe, are horſes of great ſtrength and ability: this chaſe beginning at *Chriſtmas*, which is the worſt time of riding, and ends at *Lady-day*, when the ground is beſt for it.

The next chaſe is the otter; which is not convenient for a horſe, becauſe he that will truly purſue this amphibious animal, muſt often ſwim his horſe, to the equal hazard, both of the rider and the horſe.

The hare, therefore, is the beſt chaſe both for pleaſure and delight.

It is indeed ſwift, and of ſome endurance, like that of the fox, but far more pleaſant to the horſe, becauſe hares commonly run the champaign country: and the ſcent not being ſo hot as that of the fox, the dogs are oftener at default, and by that means the horſe has many ſobs; by which he recovers wind, and regains ſtrength.

This chaſe begins at *Michaelmas*, and laſts till the end of *February*.

The beſt dogs to bring a horſe to perfection of wind, and ſpeed, are fleet northern hounds; for they, by means of their hard running, will draw him up to that extraordinary ſpeed, that he will not have time to loiter; and by continual practice, will be inured and habituated to the violence of their ſpeed, that in a ſhort time he will be able to ride on all ſorts of ground, and be at ſuch command upon the hand, that he will ſtrike at what rate you pleaſe: and three quarters ſpeed will be leſs troubleſome to him than a *Canterbury* gallop.

This may probably be one of the reaſons why your northern breeders, for the generality, excel thoſe of the ſouth; ſince certainly the ſpeed of their hounds contributes much to the excellence of their horſes, and renders them able to endure a four mile courſe without ſobs; which ſome horſemen call running.

CHAFFINCH, a ſinging bird, that takes its name from its delight in chaff; and by ſome admired for its ſong, though it has not much pleaſantneſs or ſweetneſs in it.

They are caught in plenty in flight time; but their neſts are rarely found, though they breed in hedges and trees of all ſorts, and make them of moſs and wool, or any thing almoſt they can gather up: they have young ones twice or thrice a year, which are ſeldom bred from their neſt, as being a bird not apt to take another bird's ſong, nor to whiſtle; ſo that it is beſt to leave the old ones to bring them up.

The *Eſſex* finches are generally allowed to be the beſt ſort, both for length of ſong and variety, they ending with ſeveral notes that are very pretty.

It is an hardy bird, and will live almoſt upon any ſeeds, none coming amiſs to him; and he is ſeldom ſubject to any diſeaſe, as the canary-bird and linnet are; but he will be very louſy, if not ſprinkled with a little wine, two or three times a month.

CHAFFING, IN HORSES, to prevent.

A ſore back is very common upon the road in travelling, and more eſpecially in young horſes, whoſe backs are unuſed to carry loads; therefore, to theſe laſt, a pretty large ſeated ſaddle agrees beſt; and, every morning, alter your crupper a hole or two, that it may thereby draw the ſaddle back, and now and then let it alſo have liberty forwards, and by this means he will not carry your weight always in the ſame places, which will conduce greatly to his eaſe, and keep the ſkin upon his back.

Let your horſe's back be cooled every time you bait him, and now and then waſhed with warm water, and wiped dry with a linen cloth; and the ſaddle ſhould alſo be ſcraped, ſo that no hardneſs nor inequalities remain from the ſweat, which together with the duſt, ſticks round the ſeat on the pannel.

When a horſe's back is once much inflamed, I doubt, it will be too late to keep the ſkin on upon the journey; however, alter the preſſure of the ſaddle, ſo as the parts leaſt heated may bear the burden, and that equally. Then uſe ſalt and water, warm urine, vinegar, &c. for theſe are commonly uſed to cool a horſe's back that is hurt; but, if the ſkin be broke in holes, from what people call warbles, I believe it will be found, that equal quantities of ſpirits of wine, and tincture of myrrh and aloes, with a little oil of turpentine, will be beſt to bathe the places with now and then. There will be holes or ſmall wounds in the tumours, called warbles, before ſome people would imagine it; therefore uſe the ſaid tincture, and, with care, you may proceed upon your journey; I ſay, with care, becauſe you ſhould look at your horſe's back often, and not hang upon him, ſo as to make the inflammation ſpread; therefore, for this end, it is beſt to walk on foot awhile every hour, and bathe the horſe's back with ſalt and water, vinegar, or any other thing, that is an enemy to putrefaction, till ſuch time as the hide will bear preſſing without inflammation; which it will do, by continuing this method for ſome time.

CHALLENGED COCK-FIGHT, is generally to meet with ten ſtaves of cocks, and to make one of them twenty-one battles, (more or leſs) the odd battle to have the maſtery.

CHALLENGING, (hunting-term) is uſed of hounds and beagles, when at firſt finding the ſcent of their game, they preſently open and cry: the huntſmen then ſay, they challenge.

CHANFRIN, is the fore part of a horſe's head, extending

extending from under the ears, along the interval between the eye-brows, down to his nose.

CHANFRIN-BLANCE. *See* STAR, or BLAZE.

CHANGE A HORSE, OR CHANGE HAND; is to turn or bear the horse's head from one hand to the other, from the right to the left, and from the left to the right.

You should never change your horse, without pushing him forward upon the turn; and after the turn, push him on straight, in order to a stop.

This horse changes from the right with an ugly grace. *See* ENTIRE, NAILS WALK, and a PASSADE of five times.

CHANNEL OF A HORSE, is the hollow between the two bars, or the nether jaw bones, in which the tongue is lodged: for this purpose it should be large enough, that it be not pressed with the bitt mouth, which should have a liberty in the middle of it.

CHAPE (with hunters) the tip at the end of a fox's tail; so called, as the tail itself is termed breach, drag, or brush.

CHAPELET, is a couple of stirrup-leathers, mounted each of them with a stirrup, and jointed at top in a sort of leather buckle, called the head of the chapelet, by which they are made fast to the pommel of the saddle, after being adjusted to the rider's length and bearing: they are used, to avoid the trouble of taking up or letting down the stirrups, every time that a gentleman mounts on a different horse and saddle, and to supply the want in the academy saddle, which have no stirrup to them.

CHAPERON OF A BITT-MOUTH, is a word only used for scatch-mouths, and all others that are not cannon-mouths, signifying the end of the bitt that joins to the branch, just by the banquet.

In scatch-mouths the chaperon is round, but in others it is oval; and the same part that in scatched, and other mouths, is called chaperon, is in cannon-mouths called, froncean.

CHARBON (*i. e.* coal) is an obsolete French word; signifying that little black spot, or mark, that remains after a large spot, in the cavity of the corner teeth of a horse, about the seventh or eighth year, when the cavity fills, and the tooth, being smooth and equal, is said to be raised.

CHARGE, is a preparation of an ointment, of the consistence of a thick decoction, applied to the shoulders, splaits, inflammations, and sprains of horses.

The parts affected are rubbed and chafed with this composition, after which you may cover them with sinking paper, if you will.

Charges are made two ways, *viz.* either with emmiellures, *i. e.* a mixture of honey, turpentine, suet, and other drugs; or with remolade, which is a mixture of the lees of wine with the drugs of emmiellure.

Farriers confound the names of charge emmiellures and remolade, and indifferently use one for the other.

CHASTISEMENTS, OR CORRECTIONS; are those severe and rigorous effects of the aids; for when the aids are given with severity, they become punishments.

CHAUSSE TROP-HAUT; a white-footed horse is said to be such, when the white makes run too high upon the legs.

CHECK (in Falconry) is a term used of a hawk when she forsakes her proper game, to fly at pyes, crows, rooks, or the like, crossing her in her flight.

CHEST-FOUNDERING, IN HORSES: this proceeds generally from hard labour, whereby the horse becomes surfeited; so that upon the whole it is no more than a severe cold, and is to be managed accordingly.

When a horse is chest-foundered, his coat will stare, and his flanks will heave more than common. Moderate bleeding is the best, in order to ease his difficulty of breathing; but I would not advise the opening his flank-veins or those on the inside of the thigh, for that is seldom attended with any good effect.

Take oil of petre half an ounce, mix it with an ounce of the oil of chamomile; and so proportionably a greater quantity, as you see occasion, and bathe the breast with a hot woollen-cloth; and, when you have in that manner chafed it as well as you can, run a hot iron over it to make it sink into the skin; do this twice or thrice, and give the horse a quarter of a pint of sallad-oil, and the like quantity of aqua-vitæ, warmed and well mixed together over a gentle fire. *See* FOUNDERING.

CHEST-TRAPS, A kind of boxes or traps, used to take pole-cats, fitchets, martens, and the like vermin, that are injurious to warrens, dove houses, or hen roosts: the first of them being with a single, and the other with a double entrance, are represented thus: Now for the making and using them, take three pieces of oak or elm-board, of an equal bigness, like to that which is in Plate IV. Fig. 2. with A, B, C, D: let them be four feet long, one over, and about an inch thick; which nail together just like a coffin, and close up one end with a piece of the board, which must be nailed fast on, as A C E F; likewise nail over three main boards, another piece, as A, F, G, H, which must be as large as any of the rest, but not so long by two parts in three: and for the rest of the covering, you must have another piece of the same board: on the other side of the boards make a little hole with a gimblet, at the places marked G, H, where fasten two nails, that may be driven into the board that lies on the top, so as to serve for sockets, or as the axle of a coach: so that the board may easily be lifted up and let down: and at the other end I K, nail another piece of timber, just equal to that marked A, F, G, H, which must only be fastened to the upper boards in such manner, that being let down, the whole may seem to be a chest close shut; then get two pieces of wood, as L, M, P, Q, two feet long, and one inch and a half thick, and pierced at the end L, M, with a hole big enough to turn one's little finger in; nail these on the two side boards, about the middle of them, just opposite to each other, with a piece of wood an inch square, shaped at both ends like an axletree, which put easily into the two holes L, M; at the middle of the said axletree, frame a mortice or hole to fasten and tie a stick O, N, which may fall down upon the moving plank, when it

is let down; and this is intended to prevent any beast from lifting up the cover when once it is down.

Before you nail all the boards together, make a hole in that plank marked A, B C D, at the place marked U, X; which hole should be two inches long, and half an inch over, just opposite thereto, and in the other plank bore a little hole with a gimblet as at R, that you may put in a small cord; at the end whereof you tie your tricker R, N, S, N, T, made of a stick as big as one's little finger, which though fastened at the end R, may however have liberty enough to move up and down, and must pass through the hole U, about two inches out, with a notch or two at T; about the end of it tie your bait on this tricker within the chest trap, which ought to be appropriated to the nature of the beast, or vermin, you intend to take.

For the setting this trap, you must have a strong cord upon the moving plank, near the middle of it marked Y; towards the end at the other end of the said cord, tie a small stick marked U, an inch and half long, and half as big as one's finger, formed at one end like a wedge, so the trap being lifted half a foot as you see it represented in the figure, and the cord which passeth over the axletree, Z, O, the little stick may have one end in the notch T of your tricker, and the other end in the hole X, and then is your trap or engine set right as it should be: if your tricker be a quarter of an inch clear from the bottom when any vermin are once in, and gives but one touch to the bait, which is on the tricker that gives way, down falls the moving plank with the door fast shut.

The other trap with the double entrance is much the best, because the vermin you intend to take may see through it to behold the prey, and come in at which side they please, and therefore will sooner venture.

It is made much after the same manner with the former, having two turning planks, and the tricker ought to be in the middle at Z: so there needs no farther directions to be given about it. *See* Plate IV. Fig. 2.

CHEVALER: (a French word) a horse is said to chevaler, when in passaging upon a walk or a trot his far fore leg crosses or overlaps the other fore leg every second motion. *See* TO PASSAGE.

CHEVIN } A fresh water fish, having a great
CHUB-FISH } head.

CHEVIN-FISHING, this fish spawns in *March*, is very strong, though inactive, yielding in a very little time after he is struck, and the larger he is, the more quietly he is taken.

As for his food, he loves all sorts of worms and flies, also cheese, grain, black worms, their bellies being slit that white may appear. He affects a large bait, and variety of them at one hook; but more particularly he delights in the pith that grows in the bone of an ox's back; but you must take care to keep off the tough outward skin, without breaking the inward tender one.

This fish is to be angled for early in the morning with snails; but in the heat of the day, make use of some other bait, and in the afternoon fish for him at ground or fly; of the last of which there is none he covets more than a great moth with a large head, whose body is yellow, with whitish wings, which is commonly found in gardens about the evening.

CHEWING BALLS FOR HORSES: these balls are used for restoring lost appetite, an infirmity to which horses are very incident, proceeding from a salt humour, and bitter phlegm, which obstructs the passage of the throat, and makes them loath their food.

The composition of these balls is as follows:

Take a pound of assa-fœtida, as much liver of antimony, and half a pound of the wood of a bay-tree, an equal quantity of juniper wood, and two ounces of pellitory of *Spain*.

Pound all the ingredients apart to a gross powder, in order to which the woods must be first very well dried, then put them all together in a mortar, and incorporate them with a large quantity of good grape verjuice well clarified, pouring it in by degrees, till they are reduced to a mass, of which make balls of an ounce and an half, and dry them in the sun: wrap one of these balls in a linen clout, and tying a thread thereto make the horse chew it for two hours in the morning; and he will eat as soon as you unbridle him: do the same at night, and continue this method till the horse recovers his appetite.

When one ball is consumed put in another.

These balls may be used on the road, as you travel, being tied to the bridle; balls of *Venice* treacle may be used in the same manner with good success.

CHINE, MOURNING OF. This is caused by suddenly cooling upon excessive heats, standing in damp or wet places, or eating such things as turn to raw humours, which, falling upon the liver and lungs, frequently inflame or putrefy them, so that they occasion the horse, by defect of their office, to fall down suddenly and die; therefore, when you by any trembling or dulness suspect this grievance, use the following cure.

Let your horse blood; and, having chafed him well, take olive-oil and verjuice, of each two ounces; the juice of celandine, and powder of elecampane root, of each an ounce; warm them a little; and, tying his head up to the rack, pour them into his nostrils, stopping them close after it, that he may be forced to sneeze and strain to cast it out; after which, having an ounce of the powder of rhubarb heated in a pint of canary, give it him in a drenching-horn, as hot as he can well endure it, and so use him each morning for a week together, and the bad humours will go off.

CHOLER, OR SHARPNESS OF URINE, IN HORSES: if you see the skin yellow or bluish, these humours abound, and cause a feverish heat: to reduce them observe the following directions:

Take a handful of elder-leaves, an ounce of the seeds of peony, or, for want of elder leaves, elder-bark; bruise and seethe them in a pint of ale, and give warm. Or,

Take of turbith, an ounce; ginger, cinnamon, mastic, galingal, and aloes hepatic, of each half an ounce; diagridium, rhubarb, and senna, of each a drachm: dry, bruise, and make them into a powder, giving the horse the whole quantity at two doses in warm ale or milk.

CHOLIC:

CHOLIC: when a horse has this pain violently, it is as dangerous as the staggers, and care must be taken of the first approaches of the disorder; for, when it comes to that degree which the farriers call convulsions of the bowels, and which is much the same with what we call a twisting of the guts, the case is nearly desperate.

In the first approaches of the cholic, the horse's belly may be perceived to be swelled, he looks uneasy, lies down, rolls himself about, and gets up again; and his mouth is hot, and his eyes look red. After it is come to the more desperate state, he stamps furiously upon the ground, rubs his sides hard against the wall, stretches out his legs and neck, and gives all possible signs of the greatest uneasiness.

This disorder is generally occasioned by the creature's eating too greedily of coarse green food, and sometimes by sudden cold when he is hot; sometimes also by the eating unwholesome herbs, as these creatures will do when they come into fresh pastures, though they would not touch the same plants in those grounds where they have been used to feed. Very often the following medicine will produce a cure.

Scald some bran, and put to it a tea-spoon full of oil of anniseed; stir it together, and give it warm. If this does not answer, dissolve a quarter of an ounce of philonium romanum in a pint of peppermint-water, and give this for a drench. In case this fails, recourse must be had to clysters. Boil two handfuls of mallow-leaves, and a quarter of a pound of cummin-seed, in three quarts of water, for a quarter of an hour; put to this a quarter of a pound of sugar: then strain it off, and add a quarter of a pint of sallad-oil, and two spoonfuls of oil of turpentine. This must be given warm, and the horse must be walked gently after it. After which give him clean hay, warm water, and bran; and, if he does not grow well directly upon this, repeat the dose of philonium romanum once in eight hours, and put oil of anniseed in all his bran.

When his case is come to the worst before care is taken, or, the worst symptoms come on in spite of these remedies, the horse must be blooded. Then, instead of the philonium and peppermint-water, give it to him thus:

Dissolve a drachm and a half of the philonium in a pint of mountain wine; add to it a quarter of a pint of sallad oil, and a tea-spoon full of spirit of sal-ammoniac; give this as a drench, and ride the horse gently half an hour after he has taken it. If this does not succeed, mix a grated nutmeg, and a quarter of an ounce of jalap, in a quarter of a pint of gin; add half a quartern of sweet-oil, and give it him as a drench. One or other of these must be given once in three hours, and repeat the clyster as often as he seems violently in pain. He must be ridden softly about at times; and by this means the fit, if it be ever so bad, will be carried off. But care must be taken that it does not return; and this will be chiefly prevented by giving him only very good dry food, scalded bran, warm water, and sometimes a little anniseed mixed with the bran.

The following balls and clysters for the windy-cholic may be given with safety: viz.

First ball for the windy-cholic.—Take fennel seeds, powder of anise and cummin, of each half an ounce; two drachms of camphire; fifty drops of oil of juniper, and one drachm of pellitory of the wall: make all these into a ball with any kind of syrup, and wash it down with about a horn and a half of ale.

Second ball for the windy-cholic, when attended with the stranguary.—Take sal-prunella one ounce, Venice-turpentine and juniper-berries powdered, of each half an ounce, oil of juniper one drachm, and salt of tartar two drachms; make these into a ball, and wash it down with ale. These balls may be repeated till they are effectual, and the horse may be walked about. I would also recommend the following clyster to be administered between the balls; that is, after the first and second ball. The clyster is:

Take half an ounce of long-pepper, two handfuls of chamomile flowers, anise, coriander, and fennel, seeds, of each an ounce; boil these in three quarts of water till they are reduced to two, and then add half a pint of gin, eight ounces of oil of chamomile, and half an ounce of oil of amber.

I shall now give two or three receipts for drinks, composed of articles easily procured.

I. Take Venice-turpentine, dissolved with the yolk of an egg, six drachms; Castile-soap, or hard soap, one ounce; nitre, or saltpetre, one ounce; juniper-berries, and ginger, each half an ounce. Mix these with about a quart of warm ale, and a large onion boiled in them; and you may repeat this two or three times, as you find it necessary.

II. Take Daffy's-elixir and sallad oil, of each half a pint; and of philonium one ounce and a half. This should be given warm, and repeated if necessary.

I shall, in the next place, describe the dry cholic, or gripes, which frequently arises from costiveness; this is discovered by the horse's fruitless and frequent attempts to dung, the quick motion of his tail, the high colour of his urine, and if he can dung, it will be very black and hard; in this case, an emollient oily clyster should be used twice a-day, and the following purging drink:

Take of senna three onnces, salt of tartar half an ounce; infuse these in a quart of boiling water an hour or two; then strain it off, and add four ounces of Glauber's salts and two ounces of lenitive electuary.

The inflammatory or bilious cholic is the last sort to which a horse is subject. Most of the symptoms attending the windy cholic will be found in the dry; and in this is superadded, a great heat, panting, and dryness of the mouth. In this case copious bleeding is prescribed, at least two quarts; and this should be repeated, if the symptoms do not abate; the emollient clyster, with two ounces of nitre dissolved in it, should be thrown up twice a-day, and this will cool his inflamed bowels. And give him the same cooling purging-drink as is prescribed for the dry gripes. *See* GRIPES.

CHOPS, CLEFTS, RIFTS, are maladies in the palate of a horse's mouth, caused either by coarse and rough hay, full of thistles and other prickly

prickly ſtuff; or by foul provender, full of ſharp ſeeds; which by frequent pricking the bars of his mouth, cauſes them to wrinkle and breed corrupt blood, which may turn to a canker: which if it ſhould come to that, it is to be cured as a canker: but to prevent it, waſh his mouth with vinegar and ſalt, and anoint it with honey.

And for the removing of theſe diſtempers, pull out his tongue, ſlice it with an inciſion-knife, and thruſt out the kernels, or corruption, then waſh the parts as before directed.

But to prevent their coming at all, the beſt way is to waſh his mouth or tongue often with wine, beer, or ale, and ſo bliſters will not breed in it, or any other diſeaſe.

CHOPS, } do alſo often happen in a horſe's legs,
CRACKS, } on the bought of the paſtern, accompanied with pain, and a very noiſome ſtench, which is ſometimes cauſed by a ſharp and malignant humour that frets the ſkin.

The cure may be effected by firſt ſhaving away the hair from the complaint, in order to keep it clean, and applying the white honey charge, or coachman's ointment, which will ſpeedily heal the chops, if the application be conſtantly renewed. *See* CRACKS.

CHUB FISHING. This fiſh is full of ſmall forked bones, diſperſed every where through his body; eats very wateriſh, and being not firm, is in a manner taſteleſs: it is the beſt of any to entertain a young angler, as being eaſily taken: in order to which you muſt look out for ſome hole, where you ſhall have twenty or more of them together in a hot day, floating almoſt on the ſurface of the water.

Let your rod be ſtrong and long, your line not above a yard long and very ſtrong, baited with a graſshopper, which bob up and down at the top of the water, and if there be any chubs they will riſe.

But you muſt place yourſelf ſo as not to be ſeen, for the chub is a timorous fiſh, and the leaſt ſhadow will make him ſink to the bottom; though he will riſe again ſuddenly, and this is called bobbing.

When your hook is baited, drop it gently about two feet before the chub you have pitched upon by your eye to be the beſt and laireſt, and he will inſtantly bite greedily, and be held faſt, for he is a leather-mouthed fiſh, ſo that he can ſeldom break his hold; and therefore it will be beſt to give him play enough, and tire him; or otherwiſe you may endanger your line.

If you cannot get a graſshopper, you muſt bait your hook with any kind of fly or worm, and if you will fiſh with a fly, graſshopper, or beetle, it muſt be at the top of the water: but if with other baits, underneath it.

In *March* and *April* you ſhould angle for the chub with worms; in *June* and *July*, with flies, ſnails, and cherries; but in *Auguſt* and *September*, uſe a paſte made with Parmeſan or Holland cheeſe, pounded in a mortar with ſaffron; adding to it a little butter.

Some uſe a paſte made of cheeſe and turpentine for the winter ſeaſon, at which time the chub is in his prime: for then his forked bones are either loſt, or turned into griſtles; and his fleſh is excellent meat, baked; his ſpawn is admirable; and if he be large, the throat, when the head is well waſhed, is the beſt part of the fiſh.

However, in hot weather you muſt angle for this fiſh in the middle of the water, or near the top of it; but in cold weather, near the bottom.

CHUSING OF DOGS: in order to chuſe a dog and a bitch for good whelps, take care that the bitch come of a generous kind, be well proportioned, having large ribs and flanks; and likewiſe that the dog be of a good breed, and young: for a young dog, and an old bitch, breed excellent whelps.

The beſt time for hounds, nitches, or bratchets to be lined in, are the months of *January*, *February*, and *March*.

The bitch ſhould be uſed to a kennel, that ſhe may like it after her whelping, and ſhe ought to be kept warm.

Let the whelps be weaned after two months old; and though it be ſome difficulty to chuſe a whelp under the dam, that will prove the beſt of the litter, yet ſome approve that which is laſt, and account him to be the beſt.

Others remove the whelps from the kennel, and lay them ſeveral and apart one from the other; then they watch which of them the bitch firſt takes and carries into her kennel again, and that they ſuppoſe to be the beſt.

Others again imagine that which weighs leaſt when it ſucks to be the beſt: this is certain, that the lighter whelp will prove the ſwifter.

As ſoon as the bitch has littered, it is proper to chuſe them you intend to preſerve, and drown the reſt; keep the black, brown, or of one colour; for the ſpotted are not much to be eſteemed, though of hounds the ſpotted are to be valued.

Hounds for chaſe are to be choſen by their colours: the white with black ears, and a black ſpot at the ſetting on of the tail, are the moſt principal to compoſe a kennel of, and of good ſcent and condition.

The black hound, or the black tanned, or the all-liver coloured, or all white: the true talbots are the beſt for the ſtronger line: the grizzled, whether mixed or unmixed, ſo they be ſhag-haired, are the beſt verminers, and a couple of theſe are proper for a kennel.

In ſhort, take theſe marks of a good hound; that his head be of a middle proportion, rather long than round; his noſtrils wide, his ears large, his back bowed, his fillet great, haunches large, thighs well truſſed, hams ſtraight, tail big near the reins, the reſt ſlender; the leg big, the ſole of the foot dry, and in the form of that of a fox, with large claws.

CINQUE PORT, a ſquare net reſembling a cage, taking its name from the five entrances into it: it is of excellent uſe for any pond or river, ſwift or ſtanding water, for catching of fiſh, and the way to ſet it is repreſented in the figure.

To make uſe of this net, provide four ſtraight, ſtrong poles, anſwerable in length to the depth of the water; ſharpen the great ends like ſtakes, and notch them within a foot of the ends, to faſten the four corners of the

the net, as E F G H; make the little notches on the same poles at a convenient distance, for the fastening the four upper corners in the same manner, as A B C D. *See* Plate IV. Fig. 3.

The bottom of the net is four square, without any entrance; in order to place this with the greater conveniency, get a boat to put the net in the water, for the poles must be driven fast in the ground, and at such a proper distance, that the net may be stretched out stiff, each pole answering to his fellow in an exact direct line; and this may suffice in any standing water; but if it be in a swift stream, the motion of the water will always move the net, and so frighten away the fish.

Now in order to prevent this inconvenience, fasten some strong sticks at the very top of the four poles, to straighten and strengthen one another, and to keep all tight; as for example, observe the same pointed and marked with little *a*, *b*, *c*, *d*, and you will easily comprehend it; but then if you fasten two others crossways from A, *a*, unto great D and little *d*, and from C, *c*, to great B, and little *c*: you need not fear it, for the water can have no power over it. *See* Plate IV. Fig. 3.

CLAP, (in Falconry) the nether part of a hawk's beak.

CLAP-NET, AND LOOKING-GLASS, otherwise called doring or daring, is a device to catch larks with; for which end you are to provide four sticks, very straight and light, about the bigness of a pike, two of which should be four feet nine inches long, and should all be notched at the ends, as in the figure of these sticks marked with the little *a* and *b*; at the end *b*, fasten on one side a stick of about a foot long, of the same bigness with the other four sticks, and on the other side a small peg of wood, marked A, three inches long; then get four sticks more, each a foot long, as the letter *f*, each must have a cord nine feet long, fastened at the bigger end thereof, as *e*, *f*; every one of them should have a buckle at the end *e*, for the commodious fastening of them to the respective sticks, when you go about to spread your net, which is plainly represented in Plate IV. Fig. 5.

You are also to provide a cord, *a*, *k*, *b*, *g*, which must have two branches, *a*, *k*, one of them is to be nine feet and a half long, the other ten, with a buckle at each end; the rest of the cord, from *b* to *g*, must be between twenty-two and twenty-four yards long; and all these cords, as well the long ones, as those with the sticks, should be strong twisted, about the bigness of one's little finger. The next thing to be provided is a staff, *m*, *n*, about four feet long, pointed at the end *m*; and at the end *n*, fasten a little ball of wood, for the convenient carrying of these many necessaries, in some sacks or wallets; you must also have a small iron spade to level the ground, as you see occasion, and two small rods, like that marked *l*, *m*, *n*, *o*, each eighteen inches long, having a great end L, and thereto a small stick fixed, as *p*, with a packthread near the end of the said rod; and about letter *m*, being about nine inches from it, tie another packthread with two ends, each hanging clear a foot long: at each end tie a little pecked stick, as *q*, *r*, and at the smaller end of the said rod, tie a packthread with four doubles, which must form two loops, as *o*, which tie to the legs of some larks: you must have also two small reels, as F, G, by the help whereof you may make the larks fly, as there is occasion: the next thing you are to prepare, is a looking-glass: for which *see* LARK CATCHING.

When it is thus fixed, put a small line into the hole *j*, and your glass is finished; you must place it between the two nets, near the middle of them, at the letter *j*, and carry the line to the hedge, so that pulling the line you may make the looking-glass play in and out as children do a whirligig, made of an apple and a nut. Always keep it turning, that the twinkling of the glass against the sun, may provoke the larks to come to view it.

When you intend to pitch your nets, be sure to have the wind either in front or behind them, lest if it be in either side, it hinders their playing: chuse some open place, and let it be remote from trees or hedges, at least an hundred paces; then the ground being clear from all stones and rubbish, spread the net after the manner expressed in the figure, *viz.* the longest sticks fastened to that part of the net which is largest; as for example, in the figure, that on your right hand is bigger than the other. You must drive the peg *e*, into the ground, and pass the end *a*, of the stick, into the buckle of one of the cords of the net; and the peg *d*, into the other loop of the same end; also do the same to the other stick, at the end *l*, but before you drive your peg into the ground, strain the cord *c*, *t*, as much as you can; then take two of the sticks, as *f*, *e*, whereof one has a cord nine feet and a half long, and the other half a foot less: put the knot *e*, of the strongest cord about the end of the farther stick, and retiring, drive your peg *f*, into the ground, just opposite to the two little pegs *c*, *t*: that done, come to the other end, pass your stick *a*, into one of the shorter cords, and so drive your pegs just with the others, in a direct line, as *c*, *t*, *f*, that your cord, *a*, *e*, of the net, may be thoroughly strained. Being thus directed to set one net, you cannot well fail to set the other; only observe so to place them, that when they are drawn, one may clap about half a foot over the other.

The next thing to be done is, to take the grand cord, which is to make your net play: place the large branch *a*, about the end of the stick *a*, and the other branch *k*, about the stick *k*; then tie the knot *b*, so that it may rest in the middle, and carry the end to your lodge; strain it a little, and fasten it with a peg A, and about B make some kind of hold-fast, for the better straining it, and that it may not slip again through your hands; just even with the said hold-fast, make two holes, D, E, in the ground, to thrust against with your heels: as for your lodge, it must be made with boughs, in such a manner, that you may have a full and clear view on your nets before; and the same should be covered over head, and not very high, that you may have a prospect of all birds coming and going.

The last thing upon this occasion, is the placing your calls, (for so are the live larks termed here) and the figures direct you in what place to set them: set your little stick *p*, in the first place, and let the upper part

be about six inches out of the ground; then place the two others, *q*, *r*, on the right, and the other on the left, just at *m*, of the rod, where the cord of the said pegs is fixt; that done, tie the end of one of the pack-threads of one of the reels, about three or four inches from *m*, near the place marked *n*, and carry your reel to the letter F; the like you must do with the other rod, tied at the end *o*, and at equal distances tie the call larks by the feet, so that when you see any birds near you, it is but twitching your cords, and you force the larks to mount a little, that thereby the others may take notice of them: and when they are within your distance, pull your main cord, and your net flies up, and claps over them.

CLAMPONNIER, OR CLAPONNIER; an obsolete word, signifying a long jointed horse, that is, one whose pasterns are long, slender, and over pliant.

The word is properly applicable only to bulls or cows, for *la Claponnier*, in *French*, is in them, what the pastern is in a horse.

CLEAR WALK, a term relating to game cocks; and signifies the place that the fighting cock is in, and no other.

CLOSE, BEHIND, is a horse whose hoofs come too close together: such horses are commonly good ones.

To CLOSE A PASSADE JUSTLY, is when the horse ends the passade with a demivolt, in good order, well narrowed and bounded, and terminates upon the same line upon which he parted, so that he is still in a condition to part from the hand handsomely at every last time or motion of his demivolt.

CLOYED, } A term used by farriers of a horse,
ACCLOYED, } when he has been pricked with a nail in shoeing.

CLYSTERS, general receipts for: adapted to particular disorders in horses.

For a pestilential disease, occasioned by a choleric, or fiery humour.—Take of the seeds of coloquintida, cleared from the husks, half an ounce; the juice of centaury and wormwood, of each an ounce; castoreum, half the like quantity; juice of wood-sorrel, two ounces; and half a pint of olive-oil; concoct them into two quarts of water, a little sweetened with moist sugar, and inject it into the horse's body.

For any internal disorder proceeding from melancholy.—Take anniseeds and the seeds of mallows beaten to powder, of each an ounce: boil them with a small quantity of savin in a quart of whey or skim-milk; then add a quarter of a pound of fresh butter, and, after having well strained out the liquid part, administer it as above, lukewarm.

For any internal distemper, occasioned by sanguine corrupt blood, or watry humours, by means of bad concoction or obstruction, &c.—Take of the leaves and roots of marshmallows, a handful; of violet-leaves, double that quantity; linseeds and coriander-seeds, of each a handful; white lily roots, an ounce; the juice of senna, the like quantity with the latter; boil them in two quarts of water, to the consumption of a third part; and then add a pint of olive-oil, and give it to him warm.

An approved clyster for sickness in general.—Take of the oil of dill and chamomile, of each an ounce; the oil of cassia, half an ounce; the juice of violet-leaves, two ounces; then, having concocted a good quantity of mallows into two quarts of water, strain the liquid part, and put the before-mentioned ingredients therein, and administer them blood-warm. This is singularly good, especially in all violent diseases.

In case of restringency, or hard binding.—Take a quarter of a pint of the juice of fumitory, two ounces of the syrup of roses, as much of the oil of bays, half a pint of neat's-foot oil, and two ounces of the juice of mulberries; add to these a pint of new milk, and force it into the horse's body; and so upon other like occasions.

A receipt for an emollient clyster.—Take one pint of linseed oil, half a pound of Venice treacle, a large handful of marshmallows, and the same quantity of chamomile-flowers, two ounces of bay-berries and sweet-fennel-seeds; put these ingredients into a gallon of water, and let it boil till it is reduced to three quarts, and apply it when properly cooled, taking particular care that it is not given too hot; and if the horse be very costive, you may add four ounces of cream of tartar.

Horses are at times so much troubled with convulsions, that their jaws are frequently locked up, consequently they cannot receive much nourishment at the mouth. In order to save them from starving, it must be administered elsewhere; in this case, which is rather extraordinary, you may give him by way of clyster, about three pints of any mild broth, not too fat, made of sheep's heads, trotters, or any other kind of nourishing food.

A receipt for a restringent clyster.—To a pint of port-wine, add two ounces of jesuit's bark, four ounces of diascordium, a handful of dry red-rose leaves, and one ounce of balaustines: let all these be boiled together in two quarts of water till they are reduced to one.

A receipt for a purging clyster.—Take two or three handfuls of marshmallows, one ounce of senna, half an ounce of bitter-apple, one ounce of bay-berries, one ounce of bruised anniseed, and half an ounce of salt of tartar; boil these an hour in three quarts of water, and add four ounces of syrup of buckthorn, and half a pint of oil.

COACHMAN'S OINTMENT. Take common honey and powder of copperas, of each a pound and a half, set them over a gentle fire in a pot, mixing them well together, by stirring them constantly till they boil: then take the pot off instantly, and when it is grown half cold, put in it an ounce of arsenic in powder, then set it on the fire again, stirring it continually, till it begins to boil; then take it off the fire immediately, and keep stirring it till it grows cold: but take care to avoid the noisome smell.

Anoint the part slightly with this ointment once every two days, after it has been shaved and rubbed with a wisp. This is good for sore legs that are not gourdy, pains, mules, clefts, and rat-tails.

COCK: a domestic bird, and the male of the hen. It is the common opinion, that a cock should never grow fat, and that he ought to supply a dozen hens, from which he is distinguished by his spurs and comb: the eggs, which hens lay without being trod, must not be

be put to be hatched, for they will addle; cocks are gelt, when young, to make capons.

This bird, in general, is the most virile, stately, and majestic, of all others; and is very tame and familiar with mankind; naturally inclined to live in habitable houses; he is hot and strong in the act of generation, and delights in open plains, where he may lead forth his hens into green pastures and under hedges, that they may warm and bask themselves in the sun; for to be put up in walled places, and paved courts, is most unnatural to them, neither will they thrive.

Now, in the choice and shape of a dunghill-cock, he should be, according to our English authors, of a large and well-proportioned body, long from his head to the rump, thick in the girth; his neck should be long, loose, erect, and high, as the pelican and other birds of prey are; his comb, wattles, and throat, large, of a great compass, ragged, and of a very scarlet red; his eyes round and large, the colour should be answerable to the colour of his plume or mane, as grey with grey, red with red, and yellow with yellow; his bill crooked, sharp, or strongly set on his head; his mane or neck feathers very long, bright, and shining, covering from his neck to his shoulders; his legs straight and of a strong beam; with large long spurs, sharp, and a little bending, and the colour black, yellow, or brownish; his claws strong, short, and well wrinkled; his tail long, bending back, and covering his body very close; his wings very strong; and, for the general colour of a dunghill-cock, he should be red; he should be valiant within his own walk; and, if he is a little knavish, so much the better; he should be often crowing, and busy in scratching the earth to find out worms and other food for his hens, and inviting them to eat.

COCK, Game. The best properties for the choice of fighting-cocks, are their shape, colour, and courage, and sharp heels or spurs. As to their shape, the middle-sized ones are esteemed the best, as being soonest and easiest matched, as also the nimblest, and, generally, of most courage; whereas, for the large ones, called the turn-pock, it is difficult to find their equal; besides, they are, for the most part, heavy, not shewing that sport in a battle: likewise the small-sized ones are weak and tedious in a battle.

He should be of a proud and upright shape, with a small head, a quick large eye, with a strong back, crooked and big at the setting on the beam of his legs, very strong, and, according to his plume, grey, blue, or yellow; his spurs long, rough, and sharp, a little bending inwards.

The grey pile, yellow pile, or red, with the black breast, is esteemed the best: the pied is not so good, and the white and dun worst of all. If he is red about the head, like scarlet, it is a sign of strength, lust, and courage; but, if pale, it is a sign of faintness and sickness.

His courage is shewn by his walk, treading, and pride of his going, and in pen by his frequent crowing; for the sharpness of his heel, or, as the cock-masters call it, the narrow-heel, is only seen in his fighting; for the cock is said to be sharp-heeled, or narrow-heeled, which, every time he rises, hits and draws blood of his adversary, gilding, as they term it, his spurs in blood, and every blow threatening the other's death.

And such cocks are the best; for a sharp-heeled cock, though he be a little false, is deemed much better than the truest cock that hath a dull heel, and hits seldom.

But that cock which is both hard and very sharp-heeled, is to be esteemed above others; therefore, in your choice, choose such an one as is of a strong shape, good colour, and of a most sharp and ready heel.

Method of Breeding, &c.

The breeding of these cocks for battle is very different from those of the dunghill; for they are like birds of prey, in which the female is of better esteem than the male; and so, in the breeding of these cocks, be sure that the hens be right, that is, they must be of a right plume, as grey, grizzle, speckled, or yellowish. Black or brown is not amiss, their bodies large, and well pouked behind for large eggs, and well tufted on the crowns, which shews good courage.

If they have weapons, it is the better; also they must be of a good courage, otherwise their chickens will not be good. And it is observable, that the perfect hen from a dunghill-cock will bring a good chicken; but the best cock from a dunghill-hen can never get a good one.

Thus having got a breed of perfect cocks and hens, the best season of the year for to breed in is from the increase of the moon in *February* to her increase in *March*; for a *March* bird is of far greater esteem than those bred at other times.

Let the pen where she sits be placed warm, with soft sweet straw therein for her nest, they being much tenderer than the dunghill-hens; and permit no other fowl to come where she sits, for that will disturb her.

You should observe, if she be busy in turning her eggs; if she is, that is a good sign, but, if not, do it at such times as she rises from the nest; and be sure that she has always meat and water by her, lest when she rises she should stay long to seek food, and so her eggs be spoiled.

Likewise in the place where she sits let there be sand, gravel, and fine-sifted ashes, to bathe and trim herself in at pleasure.

In about three weeks she will hatch; and observe, if she covers and keeps the first chickens warm till the rest are hatched, to take those from her, and keep them warm in wool by the fire till all are hatched, and then put them under her, keeping both the hen and the chickens very warm, not suffering them to go abroad for three weeks or a month in the cold; for they are so tender, that the cold will kill them.

Let them have plenty of food, as oatmeal, cheese-parings, fine small wheat, and the like, and a large room to walk in, with a boarded floor; for that of earth or brick is too cold or moist. After three or four weeks, let them walk in your court-yard, or garden, to pick worms, provided there are no sinks or puddles of stinking water, which is as bad as poison for them

to drink, engendering corrupt diſeaſes. Keep them after this manner till you can know the cock chickens from the hens; and, when you perceive their combs or wattles to appear, cut them off, anoint the ſore with ſweet butter till well; and this will make them have fine, ſmall, ſlender, and ſmooth heads; whereas, if you let the combs grow to their bigneſs, and then cut them off, it will cauſe them to have gouty thick heads, with great lumps; neither is the flux of blood good, for the leaſt loſs of blood in a feathered fowl is very dangerous.

Let the cock-chickens go with their hens till they begin to fight one another; then ſeparate them into ſeveral walks, and that walk is the beſt that is freeſt from the reſort of others.

Let the feeding-places be upon ſoft dry ground, or upon boards; for to feed them upon pavements, or on plaiſter floors, will make their beaks blunt and weak, ſo that it will hinder their holding faſt. Any white corn, as oats, barley, or wheat, is good for a cock in his walk; ſo are toaſts or cruſts of bread ſteeped in drink or wine; for it will both ſcour and cool them inwardly.

If your chickens begin to crow at about ſix months old, clear and loud, or at unſeaſonable times, it is a ſign of cowardice and falſehood, ſo that they are not worth the rearing; for the true cock is very long before he can get his voice, and then he obſerves his hours. To one cock, four or five hens are ſufficient: for they are of ſo hot a nature, and will tread ſo much, that they ſoon conſume their natural ſtrength. At two years old you may put a cock to the battle, as not being before perfect and complete in every member; for, by ſuffering him to fight when his ſpurs are but warts, you may know his courage, but not his goodneſs. You muſt alſo be circumſpect about the perch whereon he roofteth; for if it be too ſmall in the gripe, or crooked, or ſo ill placed that he cannot ſit without ſtraddling, it will make him uneven-heeled, and conſequently no good ſtriker.

Seeing, therefore, that the perch is of ſuch conſequence for the marring or making of them, the beſt way is to make a row of little perches, not above ſeven or eight inches long, and about a foot from the ground, ſo that with eaſe they may go up to them; and, being ſet, muſt have their legs cloſe, the ſhortneſs of the perch not admitting otherwiſe; and it is a maxim, that he that is a cloſe ſitter is ever a narrow ſtriker.

You muſt alſo be careful, that, when your cock leaps from the perch, the ground be ſoft whereon he lights; for hard ground cauſes goutineſs. In dieting and ordering a cock for the battle, which is the principal thing, (for the beſt cock undieted is not able to encounter with the worſt that is dieted,) obſerve theſe directions:

The beſt time to take up your cocks is the latter end of *Auguſt;* for from that time till the latter end of *May* cocking is in requeſt; and, having viewed them well, and that they are ſound, hard-feathered, and full-ſummed, put them into ſeveral pens.

For the proper mode of conſtructing theſe pens, it is better to conſult ſome cock-maſter, for an ocular ſight is far better than a verbal deſcription. Only obſerve, they ſhould be made of cloſe boards, well joined together, all but the fore-part, which muſt be made open like a grate, the bars about two inches apart, and before the grate two large troughs of ſoft wood, the one for water and the other for meat; the door of the grate to be made to lift up and down, and of ſuch largeneſs, as with eaſe to put the cock in and take him out; alſo, clean the pen daily, to keep it ſweet.

The pen ſhould be at leaſt three feet high, and two feet ſquare; of theſe pens many may be joined in one front, according to the uſe you have for them. For the firſt three or four days that they are put in their pens, feed them only with old wheat-bread, the cruſt pared away, and cut into ſmall ſquare bits, with which feed them at ſun-riſing and ſun-ſet, giving them about a handful at a time; and be ſure let them not be without good freſh water.

After they have been thus fed four days, and their crops are cleared of the corn, worms, and other coarſe feeding, in the morning take them out of their pens, putting a pair of hots upon each of their heels, which hots are ſoft bombaſted rolls of leather, covering their ſpurs, that they cannot hurt or bruiſe one another, ſo ſetting them down upon the graſs, that is, two at a time, let them fight and buffet one another for a good while, provided they do not wound or draw blood of each other; and this is called ſparring of cocks. The reaſon of thus exerciſing of them, is to chafe and heat their bodies, to break the fat and glut within them, and to cauſe it to come away. Your cocks being ſparred ſufficiently, and that you ſee them pant and grow weary, take them up and untie their hots; then being provided with deep ſtraw baſkets made for that purpoſe; with ſweet ſoft ſtraw in the middle, put into each baſket a cock, covering him over with the like ſtraw to the top; then put on the lid cloſe, ſo let him ſweat and ſtove till the evening; but, before you put him into the baſket, give him a lump of freſh butter, with white ſugar-candy, and roſemary, finely chopped, and this ſcouring will bring away his greaſe, and breed breath and ſtrength. In the evening, about four or five o'clock, take them out of the ſtoving-baſket, and, licking their heads and eyes all over, put them into the pens, then take a good handful of bread cut ſmall, put it to each in their troughs, and make water therein, ſo that the cock may take the bread out of the warm urine, and this will ſcour and cleanſe both the head and the body extremely. The bread, that you muſt now and afterwards give them, muſt not be fine white bread; but a ſort made for that purpoſe, after this manner: Take half a peck of wheat-meal, and the like quantity of fine oat-meal; mix theſe together, and knead them into a ſtiff paſte, with ale, the whites of twelve eggs, and half a pound of butter. This paſte, being well wrought, make it into broad thin cakes; and, when three or four days old, and the bliſter-rings are cut away, cut it into little ſquare bits, and give it to the cocks.

There are ſome that will mix in the ſaid bread, liquorice, anniſeed, with hot ſpices; but this is not good, as it makes them too hot at heart, ſo that, when they

they come to the latter end of a battle, they are overcome with their heat.

Having fed your cocks thus after their ſparring, the next day let them reſt, and only give them their ordinary feeding of bread and water; then the next day, which is the ſparring, take them into a fair, even, green, cloſe; there ſet down one of them, and, having a dunghill-cock in your arms, ſhew it him, running from him, enticing him to follow you; and ſo chaſe him up and down for about half an hour, ſuffering him now and then to have a ſtroke at him; and, when you ſee him well heated and panting, take him up, and carry him to his pen; the like do with the reſt, and there give them their ſcouring. Take half a pound of butter that has no ſalt in it; beat it in a mortar, with the leaves of the herb of grace, hyſſop, and roſemary, until the herbs are incorporated therein, and that the butter is brought to a green ſalve; and of this give the cock a roll or two, as big as he can well ſwallow; then ſtove him in the baſket, as aforeſaid, until the evening; then take him out, put him in his pen, and feed him as before directed.

The next day let him reſt and feed, and the day following ſpar him again; and obſerve this method every other day for the firſt fortnight, to ſpar or chaſe him, as being the moſt natural and kindlieſt heats; but do not forget to give him a ſcouring after every heat, as aforeſaid, for the breaking and cleanſing him from greaſe, glut, and filth, which, lying in his body, cauſe purſineſs and faintneſs, ſo that he cannot ſtand out the latter end of a battle.

Thus having fed your cock the firſt fortnight, obſerve the ſame rules the next fortnight; but for a week do not ſpar him, or give him heats, above twice a week, ſo that three or four times in a fortnight will be ſufficient; and each time ſtove and ſcour him, according to the nature of his heats; long heats require ſtronger ſtoving, as alſo greater ſcouring. But if you find him in good breath, and that he requires but ſlight heats, then ſtove him the leſs, and give him the leſs ſcouring.

For the third fortnight, which completes the ſix weeks, which is ſufficient to prepare a cock for battle, feed him as aforeſaid, but ſpar him not at all, for fear it ſhould make his head tender and ſore, neither give him any violent exerciſe; but only two or three times in the fortnight let him moderately be chafed up and down to maintain his wind; and now and then cuff a cock, which you muſt hold in your hands; this done, let him have his ſcouring, well rolled up in powder of brown ſugar-candy; for as the cock is now come to his perfect breath, and clear from filth in his body, the ſugar prevents that ſickneſs which the ſcouring would then cauſe.

When you have fed him ſix weeks, and you find your cock is in luſt and breath, he is then fit to fight; but always obſerve, that he has at leaſt three days reſt before he fights, and that he is emptied of meat before you put him into the pit.

When he is put into the pit, your chief care muſt be to match him well, in which conſiſts the principal praiſe of a cock-maſter; therefore, when you match, there are two things to be conſidered, viz. the ſtrength of cocks, and the length of cocks; for, if he be too ſtrong, he will overbear your cock, and not permit him to riſe, or ſtrike with any advantage; if he be too long, your cock will hardly catch his head, ſo that he can neither endanger eye nor life.

Now to know theſe, there are two rules: as for his ſtrength, it is known by the thickneſs of his body, as that cock is held ſtrongeſt which is largeſt in the girth, which may be eaſily known if you meaſure him with your fingers: as for his length, it is eaſily known if you gripe him about the middle, and cauſe him to ſtretch forth his legs; but, if you are doubtful that you ſhall loſe in the one, and yet are ſure to gain in the other, you may venture to match.

When your cock is thus matched, prepare him to the battle: firſt, with a pair of fine cock ſhears, cut off his mane cloſe to the neck, from his head to the ſetting on of his ſhoulders; then clip off all the feathers from his tail cloſe to his rump, which the more ſcarlet it appears, the better ſtate of body he is in; then take his wings, and extend them forth by the firſt feather, clip the reſt-ſlopewiſe, with ſharp points, that when he riſes he may endanger the eyes of his adverſary; then, with a ſharp knife, ſcrape, ſmooth, and ſharpen, his beak, and alſo ſmooth and ſharpen his ſpurs; and, laſtly, ſee that there be no feathers about the crown of his head for his adverſary to take hold of: then, with your ſpittle moiſten his head all over, and ſo turn him into the pit to try his fortune.

When the battle is ended, your firſt buſineſs muſt be to ſearch his wounds, and ſuch as you find, ſuck out the blood with your mouth; then waſh them with warm urine to keep them from rankling, and preſently give him a bit or two of your beſt ſcouring, and ſo ſtove him up as hot as you can for that night: and in the morning take him forth, and, if you ſee his head much ſwelled, ſuck it with your mouth, as aforeſaid, and bathe with warm urine.

Then having the powder of the herb robert, well dried, and finely ſifted, pounce all the ſore places therewith, and give him a good handful of bread to eat, out of warm wine, and then put him into the ſtove again as before directed, being very careful that no air comes to him till the ſwelling is gone; but twice a-day ſuck and dreſs him, feeding him as aforeſaid.

But if your cock has received any hurt in his eye, then take a leaf or two of right ground-ivy, that is, ſuch as is found in little tufts in the bottom of hedges; chew this in your mouth very well, and ſuck out the juice, and ſquirt it into his eye two or three times, and this will ſoon cure it, provided the ſight is not pierced; and it will alſo preſerve the eye from films, flaws, warts, &c.

If your cock has veined himſelf, either by narrow ſtriking, or other croſs blow, find out the wound, and preſently bind unto it the ſoft down of a hare, and it will both ſtaunch it and cure it.

After your wounded cocks are put forth to their walks, as fit to go abroad, and when you come to viſit them in about a month or two after, if you find any hard ſwelled bunches about their heads, blackiſh at one

one end, it is a sign of unsound cores; and then with a sharp pen-knife open them, and crush out the said cores; then suck out all the corruption, and fill the holes with fresh butter, which will perfect the cure.

COCK FEEDING, is when a cock is taken from his walk, he should be fed a month before he fights: for the first fortnight feed him with ordinary wheaten bread, and spar him for four or five days that he has been in the pen: afterwards spar him daily, or every other day, till about four days before he is to fight.

For the second fortnight, feed him with fine wheaten bread, kneaded with whites of eggs and milk, and give him every meal twelve picks, or corns of barley.

He should not have water stand by him, for then he will drink too much; but let him have water four or five times a day.

If he be too high fed, stive him, and give him a clove of garlic in a little sweet oil, for some few days; if too low fed, give him the yolk of an egg, beat and warmed (till it be as thick as treacle) with his bread.

For four days before fighting, give the cock hyssop, violet and strawberry leaves, chopt small in fresh butter; and the morning he is to fight put down his throat a piece of fresh butter, mixt with powder of white sugar-candy.

COCKING-CLOTH, a device for catching pheasants with: for which take a piece of coarse canvas, about an ell square, and put it into a tan pit to colour: then hem it about, and to each corner of the cloth sow a piece of leather, about three inches square, and fix two sticks crossways, to keep it out, as A, B, C, D, in the figure, *see the Plate;* there must also be a hole in the cloth to look out at, as at E, which is represented in the figure; and being provided with a small short gun, when you are near enough, hold out the aforesaid cloth at arm's end, and put the muzzle of the gun out at the hole, which serves as a rest for the gun, and so let fly, and you will seldom miss; for by this means the pheasants will let you come near them, and the cock will be so bold as to fly at it. *See* Plate IV. Fig. 3.

COCK-PIT, a place made for cocks to fight in, being usually a house or hovel covered over, seated like an amphitheatre.

The place on which they fight is a clod, that is, the green sod; which is generally made round, that all may see, and about which there are seats and places for the spectators to sit at, three heights, or more, one above another.

On the weighing morning, that person whose chance is to weigh last, is to set his cocks and number his pens, both main and byes, and leave the key of the pens upon the weighing table (or the other party, if he pleases, may put a lock on the door) before any cock is put into the scale, and after the first pack of cocks are weighed, a person appointed by him that weighed first, shall go into the other pens to see that no other cocks are weighed but what are so set and numbered, provided they are within the articles of weight that the match specifies; if not, to take the following cock or cocks, until the whole number of main and bye cocks are weighed through. And after they are all weighed, you are to proceed as soon as possible to match them, beginning at the least weight first, and so on; and equal weights or nearest weights to be separated, provided by that separation a great number of battles can be made, and not otherwise; and all blanks, that is, choice of cocks, are to be filled up on the weighing day, and the battles divided and struck off for each day's play, as agreed on, and the cocks that weigh the least are to fight the first day, and so upwards.

At the time agreed on by both parties for fighting, the cocks that are to fight the first battle are brought upon the pit by the feeders, or their helpers; and after being examined, to see they answer the marks and colours specified in the match bill, they are given to the setters-to, who, after chopping them in hand, give them to the gentlemen who are called masters of the match (who always sit opposite to each other) when they turn them down upon the mat; and the setters-to are not to touch them, except they either hang in the mat, in each other, or get close to the edge of the pit, until they leave off fighting, while a person can tell forty.

When both cocks leave off fighting, until one of the setters-to, or a person appointed for telling the laws, can tell forty gradually; then the setters-to are to make the nearest way to their cocks, and as soon as they have taken them up, to carry them into the middle of the pit, and immediately deliver them on their legs beak to beak, and not to touch them any more until they have refused fighting, so long as the teller of the law can tell ten, without they are on their backs, or hung in each other, or in the mat; then they are to set to again in the same manner as before, and continue it till one cock refuses fighting ten several times, one after another, when it is that cock's battle that fought within the law.

But it sometimes happens that both cocks refuse fighting while the law is telling; when this happens, a fresh cock is to be hovelled, and brought upon the mat as soon as possible, and the setters-to are to toss up, which cock is to be set to first, and he that gets the chance is to choose. Then the other which is to be set to last, must be taken up, but not carried off the pit; then setting the hovelled cock down to the other five separate times, telling ten between each setting-to, and then the same to the other cock; and if one fights and the other refuses, it is a battle to the fighting cock; but if both fight, or both refuse, it is a drawn battle. The reason of setting-to five times to each cock is, that ten times setting-to being the long law, so on their both refusing, the law is to be equally divided between them, as they are both entitled to it alike.

Another way of deciding a battle is, if any person offers to lay ten pounds to a crown (that is, if he is a person thought capable of paying it if he loses, or one who stakes his money upon the mat) and no person takes it until the law-teller tells forty, and calls three separate times, "Will any one take it?" and no one does, it is the cock's battle the odds are laid on, and the setters-to are not to touch the cock during the time the forty is telling, without either cock is hung in the mat, or on his back, or hung together.

If a cock should die before the long law is told out, although he fought in the law, and the other did not, he loses his battle; for sure there cannot be a better rule for

for a cock winning his battle than killing his adversary, in the limited time he is entitled to by cock laws.

There are often disputes with the setters-to, as also with the spectators, that is, in setting-to in the long law, for often both cocks refuse fighting until four or five, or less times, are told; then they begin telling from the cock's fighting, and counting but once refused, but they should continue their number on, until one cock has refused ten times: for when the law is begun to be told, it is for both cocks: for if one cock fights within the long law, and the other not, it is a battle to the cock that fought, counting from the first setting-to.

All disputes about bets, or the battle being won or lost, ought to be decided by the spectators, for if the bets are not paid, nor the battles settled according to judgment then given, it would be a good evidence in law if an action is brought for a recovery of such bets. The crowning and mantling of a cock, or fighting at the setter-to's hand before he is put to the other cock, or breaking from his antagonist, is allowed no fight.

COCKREL, a young cock bred for fighting.

COCK ROADS, a sort of net contrived chiefly for the taking of wood-cocks; the nature of which bird is to lie close all day under some hedge, or near the roots of some old trees, picking for worms under dry leaves, and will not stir without being disturbed: neither does he see his way well before him in a morning early; but towards evening he takes wing to go to get water, flying generally low; and when they find any thoroughfare in any wood, or range of trees, they use to venture through; and therefore the cock-roads ought to be made in such places, and your cock-nets planted according to the figure. *See* Plate IV. Fig. 7.

Then supposing that your range of wood be about thirty paces long, cut a walk through it about the middle, about thirty-six or forty broad, which must be directly straight, with all the shrubs and under-wood carried away; in like manner should all the boughs that hang over the said walk be cut off: then chuse two trees, opposite to each other, as represented in the figure marked A, B, and prune, or cut off all the front boughs, to make way for the net to hang and play.

In the next place, provide two strong logs of wood, which open or cleave at the biggest ends, as marked C, D; the middle parts tie fast to some boughs of the tree, as the letters E, F, direct, and let the tops hang over, as G, H, represent.

You should always have ready good store of pullies, or buckles made of box, brass, or the like, according to the form designed by the figure, which should be about the bigness of a man's finger, and fasten one at each end of the perches or legs, G, H, having first tied on your pullies, about the two branches marked 3, a cord, of the thickness of one's little finger; then tie another knot on the said cord, about the distance of an hand's breadth from the first knot, marked 4, and so let the two ends of the cords hang down about a foot long, that therewithal you may fasten them to the pullies which are at the ends of the two perches or legs, as are marked I, L, close to the notches G, H clap a small packthread into each pully, which should reach to the foot of the trees, that by the help thereof, you may draw up two stronger cords into the said pullies, where you hang the net, and not be forced always to climb up into the tree.

Lastly, provide a stand to be concealed; about half a dozen boughs pitched up together, may serve for that purpose; with a strong crooked stake forced into the ground, just by the stand, on which fasten the lines of the net.

When it is drawn up, remember to tie a stone to the ends of each of the two cords, about four or five pounds weight each, that when you let go, the stones may force down the net with a strong fall; and pull up both the stones, and upper part of the net, close to the pullies I, L: the stones are marked M, N, and the figure represents the whole net ready for use.

The ends of both lines must be drawn to your lodge, or stand, and wound two or three times about the crooked stake, to prevent the falling of the net, till some game flies against it.

COCK's WALK, the place where a cock is bred; to which usually no other cock comes.

CODS, OR STONES SWELLED; a malady in horses that comes many ways, either by wounds, blows, bruises, or evil humours, which corrupt the mass of blood that falls down to the cods; or from a rupture, *&c.*

For the cure, take bole-ammoniac reduced to a fine powder, vinegar and whites of eggs well beaten together, and anoint the part with it daily, till the swelling abates; and if it imposthumate, where you find it to be soft, open it with an hot iron, or incision-knife, if it does not break of itself, and heal it up with green ointment.

COFFIN, OR HOOF OF A HORSE, is all the horn that appears when he has his foot set to the ground; and the coffin bone is that to the foot, as a heart or kernel: the latter is quite surrounded, or over-spread by the hoof, frush, and sole, and is not perceived, even when the horse's sole is quite taken away; being covered on all sides by a coat of flesh, which hinders the bone from appearing.

COILING OF THE STUD, is the first making choice of a colt or young horse, for any service: which by no means must be done too early: for some horses will show their best shape at two or three years old, and lose it at four; others not till five, nay, not till six; but then they ever keep it: some again will do their best day's work at six or seven years old, others not till eight or nine.

COLDS (in Farriery); there are few diseases incident to a horse, which do not originate from a cold: and as no person used to horses can be ignorant when the animal is affected with this disease, it will be sufficient to describe the nature of a cold, and the usual symptoms that attend it.

Colds proceed from various causes; the most usual are riding horses till they are hot, and suffering them to stand exposed to the air. The removing a horse from a hot stable to a cold one: and if the horse has been high fed and clothed, the cold contracted in this manner will

will often prove very violent: they alſo often get cold by not being carefully rubbed down, and the ſweat rubbed off, when they come from a journey.

Young horſes when they are breeding their teeth; particularly when the tuſhes are cutting, are more ſubject to take cold than at any other time.

When a horſe has taken cold, a cough will follow, and he will be heavy and dull in proportion to the ſeverity of the diſeaſe. The eyes will be ſometimes moiſt and watery, the kernels about the ears under the jaws will ſwell, and a thin mucous gleet will iſſue from his noſe. If the cold be violent the horſe will be feveriſh, his flanks work, he will refuſe his water, and loath his hot meat. When the horſe coughs ſtrong and ſnorts after it, eats ſcalded bran, and drinks warm water; is but little off his ſtomach, and moves briſkly in his ſtall; dungs and ſtales freely, and without pain; his ſkin feels kindly, and his coat does not ſtare; there is no danger, nor any occaſion for medicines. You ſhould however bleed him, keep him warm, give him ſome feeds of ſcalded bran, and let him drink freely of warm water.

Spirit, or ſalt of hartſhorn, in warm ale, ſweetened with ſyrup of poppies, given twice a day, is an excellent medicine on the firſt attack of cold catarrh; but great care ought to be had that the doſe of hartſhorn be not too large, leſt it excoriate the throat of the horſe and choke him. Two or three table ſpoonfuls of the ſpirit may be given for a doſe, in a quart or three pints of beer: a proper judgment may be made by the taſte of the drench. Or freſh ground ginger, two to four drachms, is an excellent ſubſtitute for the hartſhorn.

But if he feels hot, and refuſes his meat, it will be neceſſary to bleed him plentifully, and give the following drink; take three ounces of freſh anniſeed, and one drachm of ſaffron; infuſe them in a pint and half of boiling water; pour off the clear liquor, and diſſolve in it four ounces of honey, adding two ſpoonfuls of ſallad oil. This drink may be given every night, and with proper care will fully anſwer in all ſudden colds where there has been no previous diſorder.

Or you may give the following pectoral ball: Take of the freſh powder of fenugreek, anniſeed, cumminſeed, cardamums, elecampane, colts-foot, and flower of brimſtone, of each three ounces; juice of liquorice diſſolved in a ſufficient quantity of mountain wine, ſaffron in powder half an ounce, olive oil and honey, of each eight ounces, oil of anniſeeds an ounce; mix the whole together with as much wheat flour as will be ſufficient to make into a paſte.

Theſe balls are of exceſſive uſe, and given in ſmall quantities about the ſize of a pullet's egg, will encourage a free perſpiration; but in caſe of a fever, they ſhould not be continued but with the greateſt caution.

Warm cloathing about the head and neck is particularly uſeful here, as it promotes the running at the noſe: this diſcharge is increaſed too by the warm water which is always given him to drink, and by the warm maſhes which for this end ſhould be put into the manger rather hotter than he can eat them, in order to his being, as it were, fumigated with the ſteam aſcending from them, before it cools.

It ſhould be well attended to, that when a horſe has a cold, cough, or other diſeaſe, attended with a diſcharge at the noſtrils, great care is neceſſary to keep him clean. Horſes do not cough the phlegm up by the mouth, as it is common with men, but paſs it all by the noſe; in conſequence of which they throw it about, making every thing naſty that is near them: in all ſuch like caſes, give them their hay well ſhook and ſprinkled, and put it in ſmall quantities at a time, for his breath will ſpoil it ſo, that ſometimes it will ſicken him and beget a diſlike thereto: when he is not eating, put a little ſtraw into the manger, to catch the phlegm that he throws about by coughing; and alſo, that by taking away the ſtraw the manger may more eaſily be cleaned, which ſhould be done every time he is fed: be careful too, to clean his noſe well every time that he eats or drinks. Horſes are naturally clean, and nice to a great degree; and in theſe diſeaſes their recovery depends ſo much on their being kept clean, that theſe directions cannot be too much attended to.

When the ſigns of a cold or of a cough attends, but without feveriſhneſs (after due bleeding, and a purge or two) give one of the following balls every morning, to promote perſpiration; but if any degree of fever attends, avoid all warming medicines.

The Pectoral Ball.

Take of the freſh powders of anniſeed, elecampane, carraway-ſeeds, liquorice, turmeric, and flour of brimſtone, of each three ounces; of liquorice juice (diſſolved in water, enough to make it of the conſiſtence of honey) four ounces; of the beſt ſaffron, in powder, half an ounce; of ſweet oil and honey, of each half a pound; of the oil of anniſeeds one ounce; and of wheat-flour, enough to make the whole into a paſte. Of this paſte balls may be made about the ſize of a pullet's egg.

Dr. Bracken's *Cordial Ball.*

Take anniſeeds, carraway ſeeds, the greater cardamum ſeeds, of each one ounce; flour of brimſtone, two ounces; turmeric, one ounce and a half; ſaffron, two drachms; liquorice juice (diſſolved in ſmall beer) one ounce; elecampane ſeeds, half an ounce; liquorice powder, one ounce and a half; wheat flour, enough to make the whole into a paſte.

Theſe cordial balls are an improvement on the long famed Markham's Ball.

An hour's exerciſe every day will greatly haſten the cure: it alſo greatly promotes the diſcharge of rowels, which are ſometimes neceſſary, when a horſe is loaded with fleſh.

It is generally good practice to bleed at the commencement of a cold attended with fever, which ought to be repeated in a few days, if fever and fulneſs of the veſſels indicate the neceſſity. Give the following, in one or two balls, twice or thrice a day, allowing plenty of warm gruel or white water, which ſhould be poured down with the horn, if the horſe refuſe it. Nitre and cremor tartar, of each one ounce; juniper berries freſh and good, powdered, one ounce; Spaniſh liquorice melted,

melted, half an ounce, or enough to sweeten with; work them up with liquorice powder or flour. This medicine may be given in gruel or ale, if a drink be preferred, and an addition made to the quantities if required. In either of these methods, you are certain the horse has his medicine; which is by no means the case when you trust to infusions in his water, or to ingredients thrown upon, or mixed with his mashes, which are frequently rejected and lost. Some horses also with delicate stomachs will not touch a mash, in which any medicine has been mixed. There is however great inconvenience, and even danger, in forcing any medicine down a horse's throat, when he is much troubled with a cough; and the utmost tenderness and precaution ought to be used. Observe that the cloths be not damp, or hard with dirt and sweat; in regular stables, clean washed cloths should be reserved for these occasions, or new made use of, well aired. Woollen cloth is a specific for opening the pores; the stimulus of the points of wool, according to Dr. Darwin, acting upon the skin. Should the throat be much swelled and inflamed, it will be necessary to keep the hood on in the stable; and the glands may be bathed well two or three times in the day with camphorated spirits, or spirit of hartshorn with a small quantity of oil. In case of damp weather, or cold searching wind, the horse ought not to stir out of the stable; but if fine, he may be walked out an hour, in the middle of the day, well clothed, and with his hood. Dr. Bracken relates his success in running a horse a four mile sweat, in order to bring the cold to a crisis. The Doctor's prescription for increasing the discharge, when the horse may be heavy headed, from the matter being locked up, and not finding a free course, is, half an ounce of the dried leaves of the herb *asara bacca*, white hellebore one drachm; powder fine, and keep it corked up. Blow a small quantity of this snuff through a quill, up the nostrils, two or three times a day. The universal concussion occasioned by the act of sneezing, has considerable effect in opening obstructions, and is usually succeeded by a favourable glow.

It is necessary to give a caution against impatience, and against the hazard of a relapse from putting the horse to work before the running at the nose has ceased, and his appetite is re-established; a part of the morbid matter being left in the vessels may be translated to some bowel, whence it may be impossible afterwards to dislodge it. If the discharge has been considerable, the horse must have swallowed much of it with his meat; on that account, and for the sake of cleansing the habit of any relic of the disease, give, a few days after he shall have recovered of the catarrh, an aloetic purge; or a mercurial one, if a grossness and foulness of body should require it.

The fever running high, with violent heaving of the flanks, indicating great commotion of the blood, rattling in the throat, with loud strong cough; all cordial drenches, or balls compounded of hot seeds, ought to be avoided, as they occasion a dangerous increase of the fever. Cooling, aperient, and diuretic drinks, must be the dependence here; nor must the horse be over-burthened with clothes. The giving hot spicy drenches, in this case, is a usual error of the farriers, who, judging in a right line, that cold and heat are opposites; and the horse having a cold, think they cannot do better than to ply him with heat.

On the contrary, should the horse's blood seem chilled, with cold breath, cold extremities, and little discharge from the nose; it will be necessary to allow plenty of clothing, and to exhibit warm cordial and stimulating medicines; perhaps in this case, bleeding may be omitted. The common cordial ball has generally been found of equal efficacy with the other forms. Comfortable malt mashes will be required. Should the cold have been contracted from the horse being long exposed to the weather, when heated with violent exercise, or from passing deep waters in that state, and the limbs become swelled, stiff, and inactive; an addition of two drachms of camphor to the cordial drink, will render it more penetrating. After this class of medicines shall have had a successful operation, the cure may be completed with cooling diuretics, or they may be used alternately according to symptoms. Errors have been committed on both sides the question: in cold catarrh, by the too early exhibition of saline and refrigerating medicines, merely from the affectation of a new and more refined method of practice, by which the disease has been prolonged, and the patient (human or brute) needlessly kept in a weak and aguish state many days.

The symptomatic cough generally ceases with the original disease, indeed always, in case of a perfect cure; but should the cough be very frequent and troublesome, from violent irritation of the humours about the root of the tongue, and along the windpipe; the following lubricating drink will be of use, and may be given a pint or two at a time, blood-warm, at discretion.

The Pectoral Infusion to ease the cough. Raisins stoned, half a pound; liquorice root, split, or bruised, three ounces; white horehound, three ounces; linseed, two ounces; nitre, two ounces; infuse in four or five quarts boiling water, and let the whole stand covered up two or three hours, strain off, without pressing, for use.

It is evident that balls, in this case, can be of very small topical use, but that a drink has a more lasting contact with, and acts more powerfully upon the seat of the complaint; the above is free from the old objection of being too oily and clogging. Lemon juice, or solution of cremor tartar, may be added, if thought necessary. This infusion, proportionally reduced in quantity, is a most excellent remedy for hoarseness in human patients.

To allay the tickling cough in horses, and heal inward soreness, solution of gum Arabic, or tragacanth, with honey are used: also infusion of linseed, tar, oxymel of squills, &c.

Catarrh is of proportionate strength to the degree of cold taken, and its astrictive force upon the cuticular absorbents. Thus sometimes so violent a shock, or cold-stroke is received, as to cause a spasmodic contraction of the muscles, in the parts immediately affected, the spasm by sympathy extending to various other parts.

INFUSION FOR A FRESH COLD AND COUGH, FROM GIBSON. Take hyssop, coltsfoot, penny-royal, and horehound, of each a handful; six cloves of fresh garlic, peeled, and cut small, linseed, and fresh anniseed powdered, each one ounce; liquorice half an ounce; saffron one drachm; infuse in two quarts boiling water close covered; warm a quart of this infusion, and dissolve in it four ounces honey, to be given fasting, letting the horse stand two hours before he has meat or water. Scabious, rocket, agrimony, and the carminative seeds anise, cummin, coriander, fennel, &c. are used in this intention.

A COMMON INFUSION OR COOLING DRINK. Take groundsel, ground-ivy, rue, rosemary, mallows, balm, sage, parsley, or as many of them, or of similar qualities, as are at hand, of each a double handful, corn poppies one handful, boil in five quarts of soft water to three—strain and sweeten with honey or treacle.

The CORDIAL POWDER. Anniseeds, elecampane, liquorice, bay-berries, grains of paradise, juniper-berries, stone-brimstone, equal quantities all finely powdered. Mix well, and keep close corked for use. The dose from one to three ounces, in warm ale sweetened with honey, or balls made with honey or treacle. This medicine is of great use, when a horse is first seized with a shivering fit, refusing his food, and breaking out in clammy cold sweats; it may be repeated several times, at six or eight hours interval. Or, cummin-seeds, half a pound; bay-berries, and Jamaica pepper, each four ounces; myrrh, two ounces; cloves, one ounce; powder fine and mix, stop close. Said to have succeeded often in cases of cold water being drank, when the horse was in a state of perspiration.

The PECTORAL BALL FROM BRACKEN. Take half a pound of the common cordial ball, two ounces fresh hog-lice or millipedes; one ounce milk sulphur; half an ounce of cold species of gum tragacanth; balsam of Tolu in fine powder, one ounce; chos turpentine half an ounce; syrup of balsam enough to form the balls. Give half an ounce to three quarters twice a day, before going out to exercise. This ball is much recommended by the Doctor, and is well calculated for a horse which has contracted a fresh cold and cough, but is sufficiently in spirits and vigour, to be able to work it off in his exercise. It is very proper for a horse in training. Or, A good detersive or cleansing ball may be made, by adding to any form of cordial ball, squills, Barbadoes tar, and Castile soap, each about a quarter of the quantity of the cordial mixture.

LINIMENT FOR SPASMS, OR CONTRACTIONS FROM COLD. Mix goose grease, or any penetrating oil, with spirits doubly camphorated, rub thoroughly the muscles affected three times a day, a quarter of an hour each time. Oil of turpentine would be most proper, but unless previously boiled, it will fetch off the hair. Or, Nerve ointment and oil of bays, of each two ounces; camphor rubbed fine one ounce; rectified oil of amber, three ounces. Mix.

PERSPIRATIVE POWDER, FROM BARTLET. Purified opium, Ipecacuhan root, and liquorice, in powder, one ounce each; nitre and tartar of vitriol, of each four ounces. Mix well and stop close. Join from three to four drachms of this powder, with a drachm of camphor, and give it in a ball made up with treacle, night and morning, clothing very carefully.

Or, Nitre and stone-brimstone, half an ounce each; camphor one drachm; tartar emetic one drachm. Ball with treacle.

The ANTIMONIAL BEER. Glass of antimony finely powdered eight ounces, strong beer one gallon, infuse in a stone bottle a fortnight, shaking well every day. Give one pint of this in a little warm ale and treacle, twice a day, as long as needful. It has a most powerful effect upon the whole vascular system, promoting all the animal secretions, and should be kept ready for use. Or, for a hasty occasion, two ounces of antimonial wine in a drink of strong beer or ale, sweetened with treacle, twice or thrice a day. *See* FEVER.

Mr. LAWRENCE, in his judicious publication, decries the too frequent use of cordial balls, so highly in vogue amongst liquorish and sweet-toothed grooms, and the interested venders of veterinary panaceas. BRACKEN surely acted without his accustomed caution, in recommending so indiscriminately this favourite nostrum; and his recommendation set all the northern grooms in particular, cordial ball mad. In cases where cordials are indicated, almost any of the forms of the *pasta hypiatria* may succeed, but the constant use of the cordial balls, adopted in some stables, is not only a superfluous expence, but I have known it attended with very ill effects upon the porous system, and stomachs of horses. As an example take the following. A certain training groom recommended a Yorkshire lad to the care of a stable of as high-bred and good hunters as any in England. In the height of the season the gentleman complained, that although he had gone to a vast expence, and purchased, as he supposed, the best cattle, not one of them would stand a hard day's work in the field; but that after an hour's riding, they became washy and faint, ejected their meat continually, and were so light in the carcase, that they were ready to slip their girths. On examination of the horses, and the conduct of the young groom, it appeared that the mischief had arisen from his constant stuffing them, morning and night, with cordial balls, which from the quantity of sulphur they contained, and their general aperitive quality, had the above described effects: those balls being totally discontinued, the carcases of the horses became hard, and they performed their business in the highest stile.

COLICK OR CHOLIC; the most peculiar sign of the wind colick in horses, is the swelling of their body, as if it was ready to burst, accompanied with tumbling and tossing. *See* CHOLIC.

It is also known by his stretching his neck, or legs, by his striking at his belly, by his lying down and rising often, stamping with his feet, &c.

There are many remedies proper for this disease, of which I here mention but one.

Take half a pint of white wine, warm it, put to it six ounces of oil, and fifty drops of spirit of hartshorn; and give it the horse; but if he be full of blood, first bleed him: if this dose does not cure him, give him another, with an hundred drops of spirits of hartshorn. *See* CHOLIC.

COLLAR

COLLAR OF A DRAUGHT HORSE, a part of the harness made of leather and canvas, and stuffed with straw or wool, to be put about the horse's neck.

COLOURS OF A HORSE; the terms by which we call a horse's coat or outward appearance, in England; and they are these following, with the explanation of such as seem obscure.

1. White; 2. black; 3. sad iron-grey, which is black, with the tips of the hairs whitish; 4. grey, which is a darkish white; 5. dark, or black-grey, that is, a deep-coloured brownish red, a chesnut-colour; 6. bay, i. e. a light whitish-brown red; 7. flea-bitten, that is, white, spotted all over with sad reddish spots; grey flea-bitten; 8. dapple-grey, that is, a light grey, spotted, or shaded with a deeper grey; 9. dapple-bay, spotted with a deeper colour: 10. dun, a light hair colour, next unto a white; 11. mouse-dun, a mouse-colour; 12. sorrel, lighter than a light-bay, inclining to a yellow; 13. bright-sorrel, lighter than the former; 14. rount, a kind of flesh-colour, or a bay intermixed with white and grey, a roan colour; 15. grizzle, a light rount, or light flesh-colour; 16. pye-bald, that is, a horse of two colours, as some part of him white, and the other parts bay, iron-grey, or dun-colour.

The colour of horses are thus distinguished by the English; the French, upon this subject, say as follows:

1. The sorrel-bay, inclining to red, is as red-haired as a man; all are good horses of this colour, especially when the legs and tail are black; but they are very subject to be choleric, and consequently have much fire in them.

2. Sorrel, with cow's hair, and the hair of the same colour, or white: this is not so choleric as the last, having white marks, which proceed from phlegm, of which he is full; which very much qualifies the fiery nature of a horse, and makes him good.

3. A bright sorrel; a horse with this coat has white hairs, and is not good, because he has too much phlegm in him; which is the reason that he is always heavy.

4. The common sorrel, which is neither brown nor bright; but those of this coat are much esteemed.

5. The flaming sorrel; a horse with this coat is very fine, has always his extremes and his black hairs; and is much esteemed.

6. The dark sorrel; those of this colour are always very melancholy; but yet much disposed to apprehend whatsoever you would have them learn.

7. The dapple; this colour is very pleasing to the sight.

8. Bay, chesnut colour; the most common of all, and that to which nature has given qualities, that they make them excel others.

9. Bright bay; not so good, by reason of the phlegm which predominates.

10. The gilded bay; is better than the last, because he has more choler, which animates him.

11. Brown bay, almost black; this colour shews the beast to be choleric, and commonly to have fire at the end of his flank.

12. White; all of this colour are sluggish.

13. Starling; a colour that borders upon a brown-grey, or black, saving that there are many white hairs to be met with therein, and hinders it from being altogether black; horses of this colour are good enough.

14. Firebrand grey; a coat marked with black hairs, here and there in great spots; horses of this colour are very nimble and active.

15. Dapple grey; a very common colour, and is not so good as the last but one.

16. Silver-grey; a lively and beautiful grey; horses of this colour are as good as any.

17. Sallow grey; a grey mixed almost throughout with black; better than dapple.

18. Brown grey; horses of this colour are good.

19. Red grey; a better coat than all the rest, because of choler, which is mixed with the phlegm.

20. Isabella; a colour that denotes a good horse.

21. Wolf colour; bright in some horses, and brown in others; the last are the best, and come near the Isabella.

22. A very lively black is the best of any.

23. Pyed black; this colour denotes the horse to be good.

24. Pyed bay; denoting them to be still better.

25. Pyed sorrel; all these three different pyeds have some white hairs, as far as the ham, or hoof, and are all excellent horses; and it is to be observed, that those which have the least white, are the most coveted by those who understand horses.

26. Porcelaine; so called, because of their white bodies mixed with red spots; horses of this colour are very rare.

27. The vinous roan; a colour that reaches so far, that you would believe it to be that of white.

28. Another roan; has his head and extreme parts black, and is very good.

29. A rubican; is when a black or sorrel horse has white hairs here and there, especially upon the flanks; horses of this colour are very mettlesome.

30. Mouse colour is easily understood; some of these have a black stripe upon the back, others on the legs and hams; horses of this colour, and whose extreme parts are black, are to be chosen before many others.

31. Tiger; is the same as the firebrand, except that the spots in these are not so large, and that they are not so good as the others.

COLT, a word in general signifying the male and female of the horse kind; the first, likewise, for distinction sake, being called a horse colt, and the other a filly.

After the colts have been foaled, you may suffer them to run with the mare till about *Michaelmas*, sooner or later, according as the cold weather comes in; then they must be weaned; though some persons are for having them weaned after *Martinmas*, or the middle of *November*. The Author of the *Compleat Horseman* is of opinion, that the reason why most foals advance so slowly, and are not capable of service till they are six or seven years old, is because they have not sucked long enough; whereas if they had sucked the whole winter over, they would be as good at four or five years old, as they are now at eight.

They ought to be kept in a convenient house, with a low rack and manger for their hay and oats, which must be sweet and good; with a little wheaten bran mixed with the oats, to cause them to drink, and to keep their bodies open.

But since there are some who alledge, that oats make foals become blind; or their teeth crooked; the same Author is of opinion, that oats will wear their teeth, and make them the sooner to change, and also raze; therefore he judges it to be the best way to break them in a mill, because that by endeavouring with their jaws to bruise and chew them, they stretch and swell their eye and nether jaw-veins, which so attract the blood and humours that they fall down upon the eyes, and frequently occasion the loss of them: so that it is not the heating quality of oats, but the difficulty in chewing, that is the cause of their blindness.

Further, that colts thus fed with grain, do not grow thickish upon their legs, but grow broader, and better knit, than if they had eaten nothing but hay and bran, and will endure fatigue the better.

But above all they must be kept from wet and cold, which are hurtful to them, nothing being more tender than they are.

For proof of this, take a *Spanish* stallion, and let him cover two mares, which for age, beauty, and comelineſs, may admit of no difference between them; and if they be both horses, or both fillies; which is both one and the same thing, let one run abroad, and the other be housed, every winter, kept warm, and ordinarily attended; and that colt that has been kept abroad should have large fleshy shoulders, flabby and gouty legs, weak pasterns, and ill hoofs; and shall be a dull, heavy jade, in comparison to the other which is housed, and orderly kept; and which will have a fine forehand, be well shaped, have good legs and hoofs, and be of good strength and spirit; by which you may know, that to have the finest stallion, and the beautifullest mare, is nothing, if the colt is spoiled in the breeding up.

It is worth observation, that some foals, under six months old, though their dams yield abundance of milk, yet decay daily, and have a cough, proceeding from certain pellicles, or skins, that breed in their stomachs, which obstruct their breathing, and at last destroy them entirely.

To remedy this malady, take the bag wherein the colt was foaled, dry it, and give him as much of it in milk as you can take up with three fingers: but if you have not preserved the bag, procure the lungs of a young fox, and use it instead of the aforesaid powder.

It will be proper to let the colts play an hour or two, in some court-yard, *&c.* when it is fair weather, provided you put them up again carefully, and see that they take no harm.

When the winter is spent, turn them into some dry ground, where the grass is short and sweet, and where there is good water, that they may drink at pleasure; for it is not necessary that a colt should fill his belly immediately, like a horse that labours hard.

The next winter you may take them into the house, and use them just as your other horses; but let not your horse-colts and fillies be kept together, after the first year.

This method may be observed every summer and winter, till you break them, which you may do after they are three years old; and it will be a very easy thing, if you observe the aforesaid method of housing them, for ordering them the second year as you do other horses, that they will be so tame and gentle, that you need not fear their plunging, leaping, kicking, or the like; for they will take the saddle quietly.

As for all those ridiculous ways of beating and cowing them, they are, in effect, spoiling them, whatever they call it, in ploughed fields, deep ways, or the like; instead of which, let the rider strive to win them by gentle usage, never correcting them but when it is necessary, and then with judgment and moderation.

You will not need a cavesson of cord, which is a head-strain, nor a pad of straw; but only a common saddle, and a common cavesson on his nose, such as other horses are ridden with; but it ought to be well lined with double leather; and if you please you may put on his mouth a watering bitt, without reins, only the head stall, and this but for a few days; and then put on such a bitt as he should be always ridden with: and be sure not to use spurs for some time after backing.

Take notice, that as yearlings must be kept abroad together, so those of two years old together; the like for those of three yearlings, which ordering is most agreeable to them, *See* FOAL *and* STUD.

In order to make him endure the saddle the better, the way to make it familiar to him, will be by clapping the saddle with your hand as it stands upon his back, by striking it, and swaying upon it, dangling the stirrups by his sides, rubbing them against his sides, and making much of him, and bringing him to be familiar with all things about him; as straining the crupper, fastening and loosening the girths, and taking up and letting out the stirrups.

Then as to the motion of him, when he will trot with the saddle obediently, you may wash a trench of a full mouth, and put the same into his mouth, throwing the reins over the fore part of the saddle, so that he may have a full feeling of it; then put on a martingale, buckled at such a length, that he may but just feel it when he jerks up his head; then take a broad piece of leather and put about his neck, and make the ends of it fast by plaiting of it, or some other way, at the withers, and the middle part before his weasand, above two handfuls below the thropple, betwixt the leather and his neck: let the martingal pass so, that when at any time he offers to duck, or throw down his head, the cavesson being placed upon the tender gristle of his nose, may correct and punish him; which will make him bring his head to, and form him to an absolute rein: trot him abroad, and if you find the reins or martingal grow slack, straiten them, for when there is no feeling, there is no virtue. *See* BACKING A COLT.

COLT-EVIL, a disease to which both stone-horse and

and gelding are subject: it happens to the first, by an unnatural swelling of the yard and cods, proceeding from wind filling the arteries, and hollow sinew, or pipe of the yard; and also through the abundance of seed: and it affects a gelding, for want of natural heat to expel any farther.

There are several things very good for this distemper: as the juice of rue mixed with honey, and boiled in hog's grease: bay leaves, with the powder of fenugreek added to it: with which the part affected is to be anointed and sheathed.

A soft salve made of the leaves of betony, and the herb art stamped with white wine, is proper to anoint the sore; the sheath also must be washed clean with lukewarm vinegar, and the yard drawn out and washed also; and the horse ridden every day into some deep running water, tossing him to and fro, to allay the heat of his members, till the swelling be vanished; and it will not be amiss to swim him now and then: but the best cure of all, is to give him a mare, and to swim him after it. *See* SHEDDING SEED.

COLT-TAMING, is the breaking of a colt, so as to endure a rider, *&c.*

These animals being naturally of themselves unruly, you should make them familiar to you from the time they have been weaned, when foals; and so winter after winter, in the house, use them to familiar actions, as rubbing, clawing, haltering, leading to water, taking up their feet, knocking their hoofs, and the like; and so break him to the saddle.

The best time is at three years, or four at most; but he who will have the patience to see his horse at full five, shall be sure to have him of a longer continuance, and much less subject to disease and infirmities.

Now in order to bridle and saddle a colt, when he is made a little gentle, take a sweet watering trench, washed and anointed with honey and salt, which put into his mash, and so place it that it may hang about his tush; then offer him the saddle, but with that care and circumspection, that you do not frighten him with it, suffering him to smell at it, to be rubbed with it, and then to feel it; and after that, fix it on, and girth it fast: and at what part and motion he seems most coy, with that make him most familiar of any other.

Being thus saddled and bridled, lead him out to water, bring him in again; and when he has stood a little, reined, upon the trench, an hour or more, take off the bridle and saddle, and let him go to his meat till the evening, and then lead him out as before; and when you carry him in again to set him up, take off his saddle gently, and dress him, clothing him for all night.

COMB. The crest or red fleshy tuft growing upon a cock's head.

To COMMENCE, OR INITIATE, A HORSE, is to put him to the first lessons, in order to break him.

To commence this horse, you must work him round the pillar. *See* ROPE.

COMPRESSION, OF THE HOOF, IN HORSES: this happens by the coronary pushing against the nut-bone, upon which it partly moves, which takes for its point and support the upper and fore part of the foot-bone compressed; the nut-bone which it raises, and which pushes against the back sinews, occasions this sinew to press the fleshy sole against the horny one.

The consequence of this compression is, that an inflammation will extend itself to the ligaments and tendons, and occasion a stiff joint, and so render the foot useless; speedy preventives should therefore be used.

You may discover strong compressions by pushing the thumb upon the coronet, which will give him extreme pain. If the compression is not strong and violent, this method will not discover it, and you must examine his foot, pare away the horny sole till it becomes flexible, which must be done as near the frog as can be; the tool must be pressed; and, if the horse is then sensible of it, it is certain that there is a compression of the coronary-bone upon the nut-bone.

The compression is cured either by the use of repellents, dispersing the inflammation, or by drawing the sole; the latter is the most certain method, and it has been known to cure when the others have failed; the sooner, therefore, this is done, the better, as the fleshy sole is thereby immediately relieved from pressure, the space in the hoof is enlarged, the circulation becomes easy, and the free use of the foot is recovered.

CONEY. *See* RABBIT.

CONSUMPTION, IN HORSES; this disorder is known by the following symptoms: his flanks move quick, and with apparent uneasiness; he sneezes and groans frequently; his eyes are dull and watery; he breathes with difficulty, and sometimes coughs; he sweats greatly with very little exercise, and has little or no appetite to hay; when these symptoms prevail, you may be pretty sure that his lungs are affected.

You will please to observe, that, after having taken the methods I herewith prescribe, if he should relapse after some appearance of amendment, and a yellow gleet or curdled matter runs from his nose, and he grows emaciated, is much addicted to sweat, heaves a good deal, and has a short cough, I would advise you to knock him on the head, for you will never be able to effect a cure.

The salt marshes have frequently been very beneficial, and more so than medicines, as they are a great alterative; but, when you have not the opportunity of turning him into any, I would advise frequent bleeding in small quantities at a time, which should be repeated as often as there are any great oppressions of breath. Pectoral medicines may be occasionally given; but as mercury, properly prepared, is the best and most effectual physic in many cases, so in this I would particularly recommend it.

The following may be given with safety, but you must take great care of him whilst he is under the operation of it.

Take two drachms of calomel, mix it well with half an ounce of the conserve of roses, and give it the last thing at night; repeat this bolus as often as you can, without salivation or purging; and, if a moderate evacuation be wanting, let him have a gentle purge. Or the following alterative powders.

Take of native cinnabar, or cinnabar of antimony, one

one pound, powder it very fine, and add the same quantity of gum-guaiacum and nitre; let the horse have an ounce of this powder twice a-day, and wet his feeds.

CONSUMPTION, dry: this disease is occasioned by sharp corroding humours descending from the head and falling upon the lungs, by which they are many times ulcerated, and, by their bad effects, cause a macerating or wasting of the body, yet send forth no corruption at the nose, because the moisture is consumed by the heat.

Take a pint of the juice of comfrey, half a pint of oil of roses, the juice of four lemons, and an ounce of the juice of rue; let them simmer over a gentle fire, and add of the powder of round birthwort roots two ounces, and an ounce of that of rhubarb, and give him these in two equal portions, morning and evening.

CONVULSION, CRAMP-HALTING, OR LAMENESS, IN GOATS: this is produced by too extreme heats and colds, which settle a watersh humour, or contract the nerves.

Bathe the parts with oil of turpentine, spike, linseed, and boiling water.

CONVULSIONS, IN HORSES, may, and often do, arise from blows on the head, too violent exercise, and over-straining, and from a fulness of blood, or impoverished blood and surfeits. Young horses, from four to six years old, are very subject to convulsions from bot-worms in the stomach, especially in the spring; they are seized without any previous notice, and, if they are discovered in their dung, there is but little doubt that the convulsions proceed from them, especially if they are lately come out of a dealer's hands.

Convulsions sometimes proceed from distempered bowels; in this case he falls off his stomach, is dispirited, grows weak and feeble, and the least exercise will make him short-breathed. GIBSON says, "As soon as the horse is seized, his head is raised with his nose towards the rack, his ears pricked up, and his tail cocked, looking with eagerness as a hungry horse when hay is put down to him, or like a high-spirited horse when put upon his mettle; insomuch, that those who are strangers to such things, when they see a horse stand in this manner, will scarcely believe any thing of consequence ails him; but they are soon convinced when they see other symptoms come on apace, that his neck grows stiff, cramped, and almost immoveable; and, if a horse in this condition lives a few days, several knots will arise on the tendinous parts thereof, and all the muscles before and behind, will be so much pulled and cramped, and so stretched, that he looks as if he was nailed to the pavement, with his legs stiff, wide, and straddling; his skin is drawn so tight on all parts of his body, that it is almost impossible to move it, and, if trial be made to make him walk, he is ready to fall at every step, unless he is carefully supported; his eyes are so fixed with the inaction of the muscles as gives him a deadness in his looks; he snorts and sneezes often, pants continually with shortness of breath; and this symptom increases continually till he drops down dead, which generally happens in a few days, unless some sudden and very effectual turn can be given to the distemper."

I will now advise that he be bled rather plentifully if he can bear it; laxative purges and emollient clysters should be administered. If the convulsions arise from bots, give him this mercurial ball:

To a proper quantity of conserve of roses, take mercurius dulcis and philonium, of each half an ounce, and let it be given him directly.

When it proceeds from other causes, twice a-day you may give him the following nervous ball.

Take of Russia castor, powdered, two drachms; valerian root, powdered, one ounce; assa-fœtida, half an ounce; make these into a ball, with honey and oil of amber. Or,

Take aristolochia, myrrh, and bay-berries, of each two drachms; cinnabar of antimony, six drachms; and assa-fœtida, half an ounce; make these into a ball, with oil of amber and treacle.

If there are any contractions and stiffness in any of his parts, such as his cheeks, temples, neck, shoulders, spines of the back and loins, the following ointment should be rubbed in:

Take of oil of amber, two ounces; nerve and marshmallow ointment, of each four ounces; and a sufficient quantity of camphorated spirits of wine: make these into an ointment.

Frictions are remarkably useful in all convulsive cases, and should be used where there is any probability of stiffness or contractions; this method often prevents their being jaw-set; and, when the jaws do happen to set so that it is impossible to get any thing in at the mouth, they must be supported by nourishing clysters made of broth, milk, pottage, &c. but first give him the following nervous clyster:

Take rue, penny-royal, and chamomile-flowers, of each a handful; valerian root, two ounces; boil them in five pints of water, till they are reduced to four; in the strained liquor dissolve castor and assa-fœtida, of each half an ounce. Apply this once a-day.

I would not advise the use of rowels in convulsive cases, for they sometimes mortify, and seldom digest kindly; neither running a red-hot iron through the foretop and mane, for this likewise has its bad consequences.

COP: the top of any thing; also a tuft on the head of birds.

COPING-IRONS: instruments used by falconers in coping or paring a hawk's beak, pounces or talons, when they are overgrown.

CORE, IN PIGEONS: a malady, so called, form its likeness to the core of an apple; it is hard, and usually of a yellow colour interspersed with red, and is mostly seated on the anus or vent.

Cure—This must be ripened; to effect which, keep the pigeon loose, by giving it a gentle purge of tobacco; a small quantity will do; this will sometimes make them discharge the core themselves; if not, when ripe, it must be drawn out.

CORK, OR CORKING OF A SADDLE, the pieces to which the bolsters are made fast, so called from having formerly been made of cork.

CORNERS,

CORNERS, or Angles of the Volt, are the extremities of the four lines of the volt when you work in square.

CORNER TEETH of a Horse, are the four teeth that are placed between the middling teeth and the tushes, being two above and two below, on each side of the jaw; which shoot when the horse is four years and a half old.

CORNS. In the human body, corns in the feet are termed so with some propriety, from their horny substance; but what are called corns in the feet of horses are very improperly named, as they are quite of an opposite nature, rather resembling contusions or bruises, and not unlike those bruises which happen in the palms of the hands and fingers to working people, arising from violent pinching, bruising, &c. where the skin is thick, which appears of a blackish red colour, and exceedingly painful at first, containing blood; but, in the end, the serum, or thinner parts being absorbed, the red particles appear when the dead skin is removed, like red powder. In like manner corns, or rather bruises, appear red and foxy, as the phrase is. They are situated in the corner or sharp angle of the sole at the extremity of the heels, where the crust reflects inward and forward, forming the binders. But they are more frequently met with in the inside heel, from the manner of the horse's standing, together with the pressure or weight of the body, which is greater upon the inside of the hoof than the outside. Bruises of this kind are exceedingly painful, insomuch that the horse shrinks and stumbles when any thing touches or presses upon that quarter of the hoof; hence lameness. This complaint arises from different causes, according to the shape or natural formation of the hoof, together with the treatment they are exposed to. But the following are the most frequent:

1st. In flat low heels, from too great a pressure of the shoe-heel upon the sole, whether from cankers, a too great thickness of iron upon the heels of the shoe, or its being bended downwards upon the sole, or the shoe made too concave; either of these causes will produce the same effect: for, from the too great pressure upon the horny sole, the fleshy sole, which lies immediately underneath it, is compressed and bruised between the shoe-heel, the sole, and the extremities or outward points of the coffin-bone: and hence a contusion or bruise, attended with an extravasation of the blood, which afterwards gives that part of the sole a red appearance, and is the reason why the sole on that place never grows so firm and solid as it was before, but remains soft and spongy, forming a lodgment for sand and gravel, which too frequently insinuates itself into the quick, causing an inflammation, attended with a suppuration or discharge of matter, which, if not finding a passage below, will certainly break out at the coronet.

2d. This complaint is produced in wide open heels, when the hoofs are very thick and strong, from too great a luxuriancy of the binder, which, being inflected or bended downwards between the shoe and the sole, compresses the fleshy sole as already mentioned; and hence lameness.

3d. This malady, in deep narrow hoofs, proceeds from a contraction of the crust compressing the heels, &c. Hence, it not unfrequently happens in hoofs of this shape, that both heels are alike affected, from the structure and pressure of the hardened crust upon the tendinous aponeurosis, &c. on the outside of the coffin-bone, which, in this case, is bruised between the bone and the crust; hence the redness may sometimes be traced upwards almost to the coronet. In this case no radical cure can take place, as the cause which produces these bruises, &c. will exist while the horse lives, and, at the same time, the horse will be lame from the contraction of the hoof; but the remedy proposed, by way of palliation for hoof-bound feet, may be of use to render the horse more serviceable. *See* Hoof-bound.

With respect to the two first causes, when the bruise proceeds from too great a pressure from the shoe heels, &c. upon the sole, the shoe must be made so as to bear off the tender part, and likewise to some distance on both sides of it; for which purpose, a round or a barred shoe will be necessary. The red and bruised parts must be cut out to the quick, and the hoof kept soft with emollient poultices for some time. But the texture of the blood-vessels, and likewise that of the hoof at the bruised part, being destroyed, a sponginess remains afterwards, and upon the least unequal pressure from the shoe, &c. are liable to a relapse, never admitting of a thorough cure, and of consequence subject to frequent lameness.

Corns, or bruises in the feet of horses, might, by taking proper care of them, be easily avoided: for in those countries where horses go mostly bare-footed, this malady is not so much known; neither are those horses that go constantly at cart and plough subject to them: hence, therefore, this complaint is most frequently to be met with in great towns, where horses go much upon hard causeways, having their shoes turned up with high caukers on the heels, and frequently renewed, at the same time their hoofs being kept too dry and hard, from standing too much upon hot dry litter: hence will appear the necessity of complying with what is most natural to the hoofs of horses, namely, coolness and moisture, together with using such a form of shoe as will press equally upon the circumference of the crust, and without giving it any bad unnatural shape. *See* Shoeing of Horses.

CORONET, or Cronet, of a Horse, is the lowest part of the pastern which runs round the coffin, and is distinguished by the hair which joins and covers the upper part of the hoof.

The coronet of a horse's foot, is that part on the very top of it where the hair grows, and falls down upon the hoof: the coronet should be no more raised than the hoof; for, if it makes a ridge or height round it, it is a sign that either the foot is dried up, or that there are a great many humours in the coronet, that may occasion the crown-scab, and other sores, to which that part is subject. *See* Feet.

CORRECTIONS and Helps for a Horse. Before a horse is taught any lessons, you ought to take notice, that there are seven helps for his furtherance therein, or to punish him for faults committed in his lessons.

1. The

1. The voice; which when sweet, and accompanied with cherishings, is helpful; but when rough and terrible, and accompanied with strokes or threatenings, a correction.

2. The rod; which is a help in the shaking, and a correction in the striking.

3. The bitt; a help in its sweetness, the snaffle in its smoothness, but both corrections; the one in its hardness, and the other in its roughness; and both in flatness and squareness.

4. The calves of the legs; which being gently laid to the horse's sides, are helps; but corrections when you strike them hard; as giving warning that the spurs are about to follow.

5. The stirrup and stirrup-leather; which are corrections when struck against the hinder part of the shoulder, but helps when thrust forward in a quick motion.

6. The spur; that is helpful when gently delivered in any motion that calls for quickness and activity, whether on or above the ground; and a correction, when it is struck hard in the side, upon any sloth or fault committed.

7. The ground; that is a help, when plain and smooth, and not painful to tread upon; and a correction when rough, deep, and uneven, for the amendment of any vicious habit that may have been contracted.

CORVET, } (in the Manage) an air, when the
CURVET, } horse's legs are more raised than in the demivolts, being a kind of leap up, and a little forward, wherein the horse raises both his fore-feet at once, equally advanced (when he is going straight forward, and not in a circle) and as his fore-legs are falling, he immediately raises his hind-legs, as he did his fore; that is, equally advanced, and not one before the other: so that all his four legs are in the air at once; and as he sets them down, he marks but twice with them.

Horses that are very dull or very fiery, are improper for curvets; they being the most difficult air that they can make, and requiring a great deal of judgment in the rider, as well as patience in the horse, to perform it.

COSSET: a colt, calf, lamb, &c. taken and brought up by hand, without the dam.

COSTIVENESS IN HORSES, is a hardening of the excrements in the body, so that without great pain the horse cannot evacuate or void his dung; and this is often occasioned by excess of provender, insomuch that nature forces it into the bowels before it be well digested in the stomach; or again, it happens by feeding altogether upon dry meats, the which, though wholesome and nourishing, contract, notwithstanding, the excrements by the extraordinary heat they occasion; and it may likewise happen by excessive fasting: to remedy which you may give him the following clyster.

Take a handful of marsh mallows, decoct them in spring water, not exceeding a quart, add to these half a pint of sallad-oil, and six ounces of fresh-butter, of benedicta laxativa an ounce, and inject them, holding or tying close his tail by bringing it with a cord betwixt his legs, obliging him to keep it in for the space of an hour; and, the better to make it work, give him a warm mash; and, as soon as he has discharged it, give him in a drenching-horn a potion made as follows:

Take two ounces of Castile soap, dissolve it in a pint of warm white-wine, and with it a quartern of linseed-oil, sweetening them all with sugar-candy, and give it him as hot as he can drink it.

COUCHING, *among Sportsmen*, the lodging of a boar; as the dislodging of that beast is called, rearing of a boar. *See* RACING *and* HUNTING.

COUGH, IN DOGS: dogs are very subject to a cough, with a very extraordinary choaking, which is often thought to arise from a cold or some inward disorder; and I think it is often occasioned by the eating of fish-bones. To guard against it, order your servants to throw all such fish-bones where the dog cannot get at them. If the disorder be from a cold, let bleeding be repeated in small quantities, if necessary; but, if it be what is called the distemper in dogs, and they appear to be very low in spirits, bleeding is better omitted. Let meat-broth, or milk-broth, warmed, be the chief of his diet, and give the following:

Take flour of sulphur, cold-drawn linseed-oil, and salt-petre, of each one ounce; divide it into four doses, giving him one dose every other day; and let him have plenty of clean straw to lie on: or one spoonful of honey daily.

COUGH, AND ASTHMA, IN HORSES. The consequences of colds neglected or injudiciously treated, are settled habitual coughs, asthmas, broken-wind, and consumption.

Of coughs two are chiefly distinguished. The one is loose, almost continual, and increasing to violence upon the least motion: the other is a short dry cough, preceded by a husky hollow kind of wheezing, as if respiration was obstructed by fragments of hay or corn retained in the passage. This last is the kind of cough called asthma by most writers, and for which mercurial purges have been recommended. These, however, Mr. TAPLIN observes, may perhaps be exhibited with more propriety after the administration of a course of the following balls, should they fail in the desired effect. Bleeding must first be performed and occasionally repeated in small quantities, till glandular inflammation and irritability are allayed, and the blood so attenuated by the constant use of nitre, as to render the circulation free through the finer vessels of the lungs, from the obstructions in which all the difficulties proceed. Bleeding having taken place with the necessary circumspection as to the quantity, let two ounces of nitre be given punctually every night and morning in water, continuing one of the following balls every morning for a fortnight or three weeks, that a fair and decisive trial may be obtained:

Take of Castile-soap, anniseed, and liquorice-powders, each five ounces; gum-ammoniacum, three ounces; balsam of Tolu, one ounce; honey, if required to make a mass; which divide into a dozen balls.

If there should appear no abatement of the symptoms after the above trial, bleeding must be repeated, and mercurials,

mercurials had recourse to. Mr. TAPLIN advises "two doses of mercurial physic to be given eight days apart, and prepared by the addition of a drachm and a half of calomel to either of the purging balls (under the articles of PURGING) best calculated to the horse's strength and condition. After which repeat the above pectoral balls, with the addition of gum myrrh, benjamin, and Venice-turpentine, each two ounces; dividing the mass into balls of two ounces each, repeating them every morning till the above proportion (with these additions) are totally consumed."

The other kind, or that long, loud, hollow, cough, which is almost incessant, and continually increasing upon the least hurry in exercise, proceeds equally from irritability and the action of the slimy mucus upon the glands in respiration, as well as the vicidity and sluggish motion of the blood through the finer passages; but yields to remedies with much less difficulty than the asthmatic.

In this case, as in the other, bleeding must be premised, and followed by a mash compounded of equal parts of bran and oats, into which must be stirred and dissolved, while hot, honey four ounces. This mash must be repeated, with two ounces of nitre in the water, without intermission, every night and morning; giving him also every morning the following ball, being an improvement by Mr. TAPLIN upon the cordial ball of BRACKEN.

Take Turkey-figs, Spanish liquorice, anniseed, and liquorice powders, of each four ounces; carraway-seeds, elecampane, and annisated balsam, each two ounces; saffron, ginger (in powder) and oil of anniseed, each six drachms; honey sufficient to form the mass; and divide it into twelve balls, of which let one be given every morning. The figs and saffron are to be beat to a paste in the mortar previous to their incorporation with the other articles, the Spanish-liquorice is to be softened over the fire by boiling in a small quantity of spring-water, and the whole of the ingredients mixed in a proper manner.

"These balls, says our author, are powerfully cordial and restorative; they promote glandular excretion, warm and stimulate the stomach to the expulsion of wind, enliven the circulation, and invigorate the whole frame, as has been sufficiently ascertained by their instantaneous effect in the chase, where their excellence has been repeatedly established; but more particularly in deep swampy countries, when, after a severe burst, or a repetition of strong leaps, the horse has been so off his wind, or, in fact, nature so exhausted, as not to be able to proceed a stroke farther; the immediate administration of a single ball has not only afforded instant relief, but the horse gone through the day with his usual alacrity."—It may be necessary to observe, that some young horses are subject to coughs on cutting their teeth; their eyes also are affected from the same cause. In these cases, always bleed; and, if the cough is obstinate, repeat it and give warm mashes; which, in general, are alone sufficient to remove this complaint.

COUGH, IN OXEN OR COWS: this dry hoarseness or cough must be carefully looked to, or it will grow in time to a worse disease, therefore it is good to prevent it. Cure.

Take the distilled water of hyssop, or else the decoction of mint and hyssop together with the juice of leeks, and give it with oil of olives and a little garlic; for there hath not been so long a cough known, but this medicine hath helped it. Sometimes, if it be an easy hoarseness, you may give them tar with honey-water, and it will help them for certain.

COUGH, RHEUM, OR CATARRH, IN SHEEP: if early care is not taken of these disorders, the lungs will be inflamed, and the creature will die of an absolute consumption. No sheep can be cured of these in the pasture where the disease was got, for that is always a damp one; the first thing, therefore, to be done, is to remove them into one that is dry and healthy; where the air is clear and the grass sweet; and apply either of the following medicines:

I.

Press out the juice of colt's-foot leaves, fresh elecampane-root, liquorice, and hedge-mustard, of each equal quantities, beating them in a mortar, and moistening them with some mild ale; to a quart of the juice add five ounces of honey: give a quarter of a pint of this for a dose, once in twenty-four hours. Little more will be required to prevent all bad consequences, and make the cure effectual.

II.

Take an ounce of liquorice, as much of dill-seed and bay-berries, a handful of the tops of vervain; boil these when bruised, in a pint of verjuice of cyder; strain it, and give it fasting to the sheep as hot as may be taken; and so, in five mornings giving, the cure will be effected.

III.

Take an ounce of dill-seed, and as much of bay-berries, a handful of vervain, and two ounces of brown sugar-candy, bruise and boil them in a pint of cyder, or verjuice, and give it fasting as hot as can be endured.

COUNTERPOISE. The liberty of the action and seat of a horseman; so that in all the motions made by the horse, he does not incline his body more to one side than to the other, but continues in the middle of the saddle, rearing equally on his stirrups, in order to give the horse the proper and seasonable aids.

COUNTER-TIME, is the defence or resistance of a horse that interrupts his cadence, and the measure of his manage, occasioned either by a bad horseman, or by the malice of the horse.

COUNTER OF A HORSE. That part of his forehead which is between the shoulder, and under the neck.

COUNTISSES OINTMENT, used in removing sores in horses. *See* SCABBED HEELS, for its preparation.

COUP DE BRIDLE, the same as ebrillade. *See* EBRILLADE.

COUPLE: two things of the same kind set together, which is a pair; thus we say, a couple of rabbits, this being the proper term for two of them: so it is likewise used by hunters for two hounds, and a couple and a half for three.

COUPLE, denotes also a sort of band to tie dogs.

COURSING WITH GREYHOUNDS, is a recreation in great esteem with many gentlemen. It affords greater pleasure than hunting in some respects. As, First, because it is sooner ended. Secondly, it does not require so much toil. Thirdly, the game is for the most part always in sight. Fourthly, in regard to the delicate qualities and shape of the greyhound.

There are three several courses with greyhounds, *viz.* at the deer, at the hare, and at the fox.

For the deer there are two sorts of courses, the one in the paddock, and the other either in the forest or purlieu.

For the paddock, there must be the greyhound, and the terrier which is a kind of mongrel greyhound, whose business is to drive away the deer before the greyhounds are slipt, and most usually a brace or leash are let slip; seldom more than two brace. *See* GREYHOUND.

As for the paddock course, *see* PADDOCK.

Courses of the DEER *in the Forest or Purlieu.*

There are in this two ways in use, the one is coursing from wood to wood, and the other upon the lawns by the keeper's lodge.

If you course from wood to wood, you are first to throw some young hounds into the wood to bring out the deer, and if any deer come out that is not weighty, or a deer of antler, which is buck, fore, or forel, then you are not to slip your greyhounds, which are held at the end of the wood, where the deer is expected to come out, which the keepers have good judgment to know.

And if you mistrust that the greyhounds will not kill him, then you may way-lay him with a brace of fresh greyhounds.

For coursing upon the lawn, when you have given the keeper notice, he will lodge a deer for your course, then by coming under the wind, you may come near enough to slip your greyhounds for a fair course.

Coursing the HARE.

The best way in this, is to go and find out one sitting, which is easily to be done by walking cross the lands, either stubble, fallow, or corn, and casting your eye up and down; for in the summer season they frequent such places for fear of ticks, which are common in woods; also the rain and the fall of the leaf offend them.

The rest of the year, you must beat up and down with poles to start them out of their forms and retreats, and some hares will not stir, until they are almost touched, and it is a certain sign that such hares will make an excellent course.

If a hare sit near any close or covert, and have her head towards the same with a fair field behind her, you may ride with as much company as you have between her and the covert before she be put up, and then she is likely to make her course towards the champagne, for she seldom takes the same way that her head is, when she sits in her form.

When a hare is just started, you give her ground or law, which commonly is twelve-score yards or more, according to the ground where she sits, or else you lose much of your sport by putting an end to it too soon; and it is very pleasant to see the turnings and windings, that the hare will make to save herself, which sometimes prove effectual to her.

Coursing the FOX.

In coursing a fox, no other art is required than standing close, and on a clear wind, on the outside of some grove, where you are to expect his coming out, and then give him head enough, otherwise he will turn back to the covert: for the slowest greyhound will be swift enough to overtake him; and all the hazard of this course, is the spoiling your dog by the fox, which oftentimes happens; and, for this reason, you should not run any that are worth much at this chase; but such as are hard-biting dogs, that will seize any thing.

The Laws observed in COURSING.

The following were established by the Duke of NORFOLK, in the reign of Queen ELIZABETH, and were subscribed unto by the chief gentry, and thence held authentic.

1. That he that is chosen Fewterrer, or that lets loose the greyhounds, shall receive the greyhounds matched to run together into his leash as soon as he comes into the field, and follow next to the hare-finder, or he who is to start the hare until he come unto the form, and no horseman or footman is to go before, or on any side, but directly behind, for the space of about forty yards.

2. You ought not to course a hare with more than a brace of greyhounds.

3. The hare-finder ought to give the hare three sohoes before he puts her from her form or seat, to the end the dogs may gaze about and attend her starting.

4. They ought to have twelve score yards law before the dogs are loosed, unless there be danger of losing her.

5. That dog that gives the first turn, if after that there be neither cote, slip, or wrench, he wins the wager.

6. If one dog gives the first turn and the other bears the hare, he that bears the hare shall win the wager.

7. A go-by, or bearing the hare, is accounted equivalent to two turns.

8. If neither dog turns the hare, he that leads last to the coverts wins.

9. If one dog turns the hare, serves himself and turns her again, it is as much as a cote, and a cote is esteemed two turns.

10. If all the course be equal, he that bears the hare shall win; and if he be not borne, the course should be adjudged dead.

11. If

11. If a dog takes fall in a course, and yet perform his part, he may challenge the advantage of a turn more than he gave.

12. If a dog turns the hare, serve himself, and give divers cotes, and yet in the end stand still in the field, the other dog, if he turns home to the covert, although he gives no turn, shall be adjudged to win the wager.

13. If by misfortune, a dog be rid over in his course, the course is void; and to say the truth, he that did the mischief ought to make reparation for the damage.

14. If a dog gives the first and last turn, and there be no other advantage betwixt them, he that gives the odd turn shall win.

15. A cote is when the greyhound goeth endways by his fellow, and gives the hare a turn.

16. A cote serves for two turns, and two trippings or jerkins for a cote: and if she turneth not quite about, she only wrencheth.

17. If there be no cotes between a brace of greyhounds, but that one of them serves the other as turning; then he that gives the most wins the wager: and if one gives as many turns as the other, then he that beareth the hare wins the wager.

18. Sometimes the hare doth not turn, but wrench; for she is not properly said to turn, except she turns as it were round, and two wrenches stand for a turn.

19. He that comes up first to the death of the hare, takes her up, and saves her from breaking, cherisheth the dogs, and cleanseth their mouth from the wool, is adjudged to have the hare for his pains.

20. Those that are judges of the leash, must give their judgment presently before they depart out of the field.

COW, *see* HORNED CATTLE.

COWRING, (in Falconry) a term used of a young hawk when she quivers and shakes her wings, in token of obedience to the old ones.

CRABBING, (in Falconry) is when hawks stand too near and fight with one another.

CRACKS: a disorder in the heels of horses, which frequently proceeds from bad habit, but oftener from the inattention of stable-keepers, who suffer the parts below the fetlock to remain in a wet and dirty condition in severe weather.

In every twenty-four hours, but more particularly at each time of the horse's returning from the road or exercise, let the cracks or scratches be washed for a considerable time with soap and warm water, making a lather and continuing to rub them tenderly with the suds, till they become pliable, and perfectly clear from every degree of scurf, or hardness at the edges, and the stiffened mucus, or oozing, is entirely washed away; then wipe it very dry with a linen cloth, and, when perfectly so, rub in a sufficient quantity of camphorated spermaceti ointment: there is no doubt but they will soon submit to this simple treatment; if, in some days after this method has been adopted, you perceive the cracks to be deep, the discharge copious, and the smell fœtid and stinking, you may naturally conclude there is a foulness in the habit, or an acrimony in the blood, requiring rectification; in that case continue your washings with soap and warm water every night and morning; take away a proportion of blood, and rub in a small quantity of the strong mercurial ointment, instead of the camphorated spermaceti, administering two purging balls; and, if necessary, afterwards a diuretic ball, every other morning, for a fortnight. Or,

Boil fenugreek-seed and marshmallow-root in water, till it is as thick as a jelly; then wash and soak the cracks with the liquor warm, and tie some of the ingredients that have been boiled soft round the whole part.

After the cracks have been thus dressed four or five times, they will grow soft at the edges, and the following ointment will then take effect:

Melt over the fire half a pound of yellow basilicon, and stir in half an ounce of powdered verdegris; mix it well, and then let it cool: spread this thick upon some leather, and, after the part is well washed and cleansed, put it on. Renew this every day till the cure is effected.

CRAMP, IN THE LEGS OF SHEEP. This disorder frequently seizes the sheep in autumn, especially such as have lain under the drip of trees; for which reason some call it the wood-evil. Turn the sheep into an upland pasture, keep them warm and dry, and give the following medicine:

Bruise a large quantity of black hoarhound, as much hedge-mustard, and half as much fresh valerian-root. Boil them in a small quantity of water, and press out the juice very hard; give a quarter of a pint for a dose once in twelve hours. Rub the legs with hot vinegar, and drive the sheep gently about, for some motion will assist the medicine in procuring redress. Or,

Get cinquefoil, or five-leaved grass, a handful; boil it in a pint of white wine, and give half a pint in a morning warm, but bathe the legs with the oil of savin.

The CRAMP AND CONVULSIONS, are the contractions of the sinews, veins, and muscles, in any member or part of the body of a horse, *&c.*

The signs of knowing it are, that the horse will be so stiff, that the whole strength of a man is not able to bow him; he will be lame and well again, as it were in a moment.

There is also another kind of cramp that seizes upon a horse's neck and the reins of his back, and universally all over his body, which may have proceeded either from a great cold, or from the loss of blood, whereby a great windiness enters his veins, and benumbs the sinews.

This distemper also may be known by his head and neck standing awry, his ears upright, and his eyes hollow, his mouth dry and clung, and his back will rise like a camel's: which disorders are to be cured by giving him somewhat to make him sweat, and by loading him with warm woollen cloths.

CRAPAUDINE, OR TREAD UPON THE CORONET, is an imperfection in a horse's foot, being an ulcer on the coronet, from whence issues a filthy matter, which by its sharpness dries up the horn beneath the part where the tread is made, and forms a kind of groove, or hollow, down to the very shoe.

CRATCHES. A ſwelling horſes are liable to, on the paſtern, under the fetlock, and ſometimes under the hoof; for which reaſon it is diſtinguiſhed into the ſinewy cratches, which affect the ſinew, and thoſe upon the cronet, called quitterbones.

CRAW, OR CROP OF BIRDS, the ſame as Ingluves. *See* INGLUVES.

CRAY, a diſtemper in hawks, almoſt the ſame as the *Pantas*, proceeding from cold, by reaſon of ill diet, and long feeding with cold, ſtale meat.

CRAY-FISH-NET: cray-fiſh, or creviſes, are readily taken with the following ſort of net, and other inſtruments repreſented in the figure, Plate IV. Fig. 8.

Provide four or five ſmall nets about a foot ſquare, tie them to a round withy hoop, or the like, as you ſee marked in the figure C, D, E; procure alſo as many ſtaves as A, B, each of them five or ſix feet long, with three forks at the end, to which faſten the hoop at three equal diſtances, in ſuch manner that when you lay the net flat on the ground, the ſtick may ſtand upright on the three forks.

Provide alſo a dozen rods or ſticks, in length five or ſix feet, cleft at the ſmall end marked in the figure I, wherein you may place ſome ſkinned frogs, the guts of chickens, or the like; having baited the ſticks, go out, and where you find any likely hole in the water, there leave it, and ſo after this manner lay the reſt in the moſt likely places, and walk in and out viſiting the ſticks; when you perceive any fixed to the baits, gently move the baited end towards the middle of the water, and doubt not that cray-fiſh will keep their hold; when that is done, put your net juſt under the bait, and ſoftly lift up the bait, and as ſoon as the cray-fiſh feel the air, they let go their hold, and fall into the net.

CREANCE, CRIANCE, CRIANTS, } A fine, ſmall, long line and even ſpun packthread, which is faſtened to a hawk's leaſh, when ſhe is firſt lured.

CREAT, is an uſher to a riding maſter, or gentleman bred in the academy, with intent to make himſelf capable of teaching the art of riding the great horſe.

CREPANCE, is a cratch or chap in a horſe's legs, given by the ſpunges of the ſhoe of the hinder feet croſſing and ſtriking againſt the other hinder foot.

This cratch generates into an ulcer.

CRESCENT, (among Farriers) a horſe is ſaid to have creſcents, when the point, or that part of the coffin bone, or little foot, which is moſt advanced, falls down, and preſſes the ſole outwards; and the middle of the hoof, above the toe, ſhrinks and becomes flat by reaſon of the hollowneſs beneath it: though thoſe creſcents be really the bone of the little foot, which has left its place, and fallen downwards, ſo as the under part of the foot, that is the ſole and the toe, appears round, and the hoof above ſhrinks in.

CREST-FALLEN, is an imperfection or infirmity in a horſe, when the upper part of his neck. in which his mane grows, called the creſt, hangs either on the one ſide or the other, not ſtanding upright as it ought to do.

This proceeds for the moſt part from poverty, cauſed by ill keeping, and eſpecially when a fat horſe falls away ſuddenly upon any inward ſickneſs.

The remedy is as follows: firſt raiſe it up with your hand, and place it as it ought to ſtand: then let a perſon ſtanding on the ſide the creſt falls from, hold up the creſt with one hand, and thruſt out the bottom of it with the other, ſo that it may ſtand upright.

This being done, draw a hot iron, broad on the edge, on that ſide through the ſkin, (driving his neck firſt on the bottom of the creſt, then in the midſt of it, and laſtly at the ſetting on of the hair) and no deeper than on the other ſide, from whence the creſt falls: then gather up the ſkin with your hand, and apply two plaſters of ſhoemaker's wax, laid one againſt the other at the edge of the wound, and with ſmooth ſplints ſtay the ſkin, that it may ſhrink neither upward nor downward.

Then clip away all the ſpare ſkin, which you had gathered with your hand, with a ſharp pair of ſciſſars, and ſtitch the ſkin together in divers places with a needle-full of ſilk, and ſtitch the edges of the plaſter alſo to prevent it from breaking.

And laſt of all anoint the ſore with turpentine, honey, and wax melted together, and the places which you draw with the hot iron, with a piece of greaſe made warm, and thus do twice every day till it be whole.

But you muſt be ſure to take care that your ſplints ſhrink not: though after all the beſt cure for this malady is to let the horſe blood, and to keep him very well: for the ſtrength and fatneſs will raiſe the creſt again.

CREST-MANGINESS, IN HORSES: the cure.

Take of hog's lard, a pound; verdigris, four ounces; flour of brimſtone, four ounces; add to theſe a pint of very ſalt beef broth, and diſſolve what is to be diſſolved therein: then, after you have rubbed off the ſcabs and ſcurf till they bleed, waſh the place afflicted therewith, as hot as may well be endured, for a week together; and after that lay thereon a cloth dipped in green ointment. This will alſo hinder the hair from falling off; eſpecially the former.

CREVICE: denotes a chop, clift, or chink.

CRIB-BITING, IN HORSES, is rather a habit than a diſorder, though I may ſay it is a very bad one, and ſhould be prevented if poſſible. Young horſes are moſt ſubject to get this habit, and it is often occaſioned by uneaſineſs in breeding of teeth, and from being ill fed when they are hungry. The bad conſequences are, wearing away their teeth, ſpilling their corn, and ſucking in the air in ſuch quantities as will often give them the cholic or gripes.

The beſt method is to put a little ſtraw into his manger to prevent his biting it, and to abridge his allowance of hay; or you may put him by a wall where there is no manger, and lay his hay on the ground, and give him his oats in a bag; if this practice is purſued for any length of time, it will effectually cure him of this very pernicious habit.

CRICK, is when a horſe cannot turn his neck any manner of way, but holds it fore-right, inſomuch that

he cannot take his meat from the ground without great pain. The cure is to thrust a sharp hot iron through the flesh of the neck in several places, at three inches distance, and rowel all of them with horse-hairs, flax, or hemp, anointing the rowels with hog's grease.

CRINETS, } (with Falconers) small black feathers
CRINITES, } in hawks, like hairs about the fore.

CROATS, OR CRAVATS, are horses brought from *Croatia*, in *Hungary*, which for the most part beat upon the hand, and bear up to the wind: that is, bear their necks high, and thrust out their noses, shaking their heads.

The croats are subject to be hollow, or shell-toothed.

CROTCHES, (with Hunters) the little buds that grow about the top of a deer or hart's horns.

CROP, OR CRAW OF BIRDS. *See* INGLUVES.

CROTELS, } (with Hunters) the ordure or
CROTENING, } dung of a hare.

CROUP OF A HORSE, ought to be large and round, so that the tops of the two haunch bones be not in view of each other, the greater distance between these two bones the better; but yet it is an imperfection, if they be too high, which is called horn hipped, though the blemish will in a great measure disappear, if he can be made fat and lusty.

The croup should have its compass from the haunch bone, to the very dock, or onset of the tail, and should be divided in two by a channel or hollow all along to the very dock.

A racking CROUP is when a horse's fore quarters go right, but his croup in walking swings from side to side; when such a horse trots, one of the haunch bones will fall, and the other rise, like the beam of a ballance, which is a sign that he is not very vigorous.

CROUPADE, (with Horsemen) is a leap in which the horse pulls up his hind legs, as if he drew them up to his belly.

Croupades differ from caprioles and balotades, in this, that in croupades the horse does not jerk, as he does in caprioles and balotades.

CROWNET, is an invention for catching wild fowl in the winter season, and which may be used in the day-time: this net is made of double thread, or fine packthread; the meshes should be two inches wide, the length about ten yards, and the depth three. It must be verged on the side with good strong cord, and stretched out in length very stiff, upon long poles prepared for that purpose.

When you are come to the place where you would spread your net, open it and lay it out at its full length and breadth; then fasten the lower end of the net all along the ground, so as only to move it up and down; the upper end of the net must stand extended on the long cord; the further end thereof being staked first to the earth by a strong cord about five yards distant from the net: place this cord in an even line with the lower edge of the net: the other end of the cord must be at least twenty-five yards, to reach unto some natural or artificial shelter, by the means of which you may lie concealed from the fowl, otherwise you cannot expect any good success.

The net must be placed in such exact order that it may give way to play on the fowl, upon the least pull of the cord, which must be done smartly, lest the fowl should prove too quick for you.

This device may be used for pigeons, crows, or the like birds, in the corn-fields newly sown, as also in stubble-fields, provided the stubble do conceal the net from the fowl.

It may also be used for small birds at barn doors; but then you must lay for them some train of corn and chaff to entice them to the net, lying concealed.

This crownet may also be spread to great advantage and pleasure in the mornings and evenings, where you know their haunts are, at which time in hard weather fowls are wont to fly in great flocks, to and from the land, with and against the wind, and then they fly close to the ground in open countries and low lands, which generally are not full of inclosures, and when they are within reach of your net, let go and it will rise over them, and bring them back to the ground with a smart blow.

CROWNED; a horse is said to be crowned, when, by a fall or other accident, he is so hurt or wounded in the knee, that the hair sheds and falls off without growing again.

CROWNED TOP, or TOPS, (with Hunters) are the first head of a deer, so called because the croches are raised in form of a crown.

CROWN SCAB IN HORSES, a white or mealy scurf, caused by a burnt, yellow and malignant matter that breaks forth at the roots of the hair, where it sticks to the skin and makes it frizzled and stare, and at last scalds it quite off. Of this there are two kinds.

1. The dry crown scab, that is without moisture.

2. The moist one, which is so by reason of a stinking water issuing out of the pores, and communicating its stench and moisture to the neighbouring parts.

It appears on the coronet, and often all over the pastern to the joint, the part being much swelled, and will run up almost to the knee if not timely prevented.

The cure may be effected by taking two ounces of *Brazil* tobacco cut small, or at least stripped from the stalks, and infuse it for twelve hours in half a pint of strong spirit of wine, stirring it every hour, that the spirit of wine may penetrate the substance of the tobacco, and extract all its tincture.

Chafe the scab with this without taking off the skin, and afterwards rub it very hard with a handful of tobacco, repeating this once a day till it is well. Or you may let the part be dressed with a composition of equal parts of marsh-mallows, ointment, and basilicon spread on tow, and applied all round the coronet. At the same time a dose or two of physic should be given, and afterwards the diuretic balls mentioned in a following article on the grease. The common practice is, to wash the parts with a vitriol water, but the above is much safer and more expeditious.

CRUPPER, the buttocks of a horse, the rump: also a roll of leather put under a horse's tail, and drawn up by the thongs to the buckle behind the saddle, so as to keep him from casting the saddle forwards on his neck.

CRUPPER

CRUPPER BUCKLES, are large square buckles fixed to the saddle-tree behind, to fasten the crupper, each buckle having a roller or two to make it draw easily.

CUB, a young bear, or bear's whelp; (among Hunters) a fox and a martern of the first year are also called cubs.

CUD, LOST, in ox or cow: these beasts sometimes lose their cud by chance, and sometimes by poverty and sickness; and if so, they will mourn.

Take four leven of rye-bread and salt, and beat it in a mortar with man's urine and barm; make a large ball or two of it, put them down the throat of the beasts, and they will do well.

Also take part of the cud of another beast, blend it with the rye bread and four leven and salt, pound them in a mortar, so make it into balls, and give it to the beasts, and they will get their cud again for certain. If cramped, rub their knees, legs, and thighs, with salt and oil. *See* HORNED CATTLE.

CUD, LOST, in sheep, to restore:

Mix powder of allum with clay, steep it in the urine of a man all night, then take it out and make it up in little pellets, dry them in a fire-shovel or oven, and force them down the sheep's throat six or seven times, at distinct hours, giving every time after them a spoonful of elder vinegar, and the cud will be restored.

CULVER, an old word for a pigeon or dove, whence come culver-house or dove-house.

CURB, is a chain of iron made fast to the upper part of the branches of the bridle, in a hole, called the eye, and running over the beard of a horse.

CURB OF A HORSE'S BRIDLE consists of the following parts:

1. The hook fixed to the eye of the branch.
2. The chain of the SS, or links.
3. The two rings or mails. Large curbs, provided they are round, are always the most gentle.

But care must be taken that it rest in its proper place a little above the beard, otherwise the bitt-mouth will not have the effect that may be expected from it.

To give a Leap upon the CURB, is to shorten the curb by laying one of the mails or S, like joints of the chains over the rest.

CURB, IN HORSES, differs only from a spavin, inasmuch as the spavin rises among the bones on the fore-part of the hock, and the curb riseth on the hind-part, and forms a large tumour over the back of the hind leg, and often extends itself from below the heel of the hock downwards. It proceeds from hard riding, strains, kicks, or blows; and is attended with stiffness, pain, and lameness.

Blistering two or three times generally effect a cure; but, if this fails, and the curb is obstinate, firing is the only remedy, but let it be done with a thin iron, making a line down the middle from the top to the bottom; you may then apply a mild blistering plaister, and this will cure it effectually.

To CURTAIL A HORSE, *i. e.* to dock him, or cut off his tail.

Curtailing was not used in any nation so much as till lately in *England*, by reason of the great carriage, and heavy burthens our horses are continually employed in carrying or drawing; the *English* were strongly opinionated, that the taking off these joints, made the horse's chine or back much stronger, and more able to support a burden; but it is not now so much practised as it was.

The manner of performing the operation is, first to feel with your finger and thumb, till you have found the third joint from the setting on of the horse's tail, then raise up all the hair, and turn it backwards; then taking a very small cord, and wrapping it about that joint, and pulling it as tight as possible it can; which you must do three or four times about the tail, with all possible tightness, and make fast the ends of the cord: after which take a piece of wood with the end smooth and even, of the just height with the strunt of the horse's tail, and set it between the horse's hinder legs, having first trammelled all his four legs, so that he can no way stir, lay his tail upon the wood, taking a very sharp strong knife made for that purpose, set the edge thereof as near as you can guess between the fourth and fifth joint, then with a large smith's hammer striking upon the back of the knife, cut the tail off.

If you see any blood issue, you may know that the cord is not strait enough, and therefore should be drawn straiter; but if no blood follow, then it is well bound.

When you have done this, take a red hot burning iron, made of a round form, of the full compass of flesh of the horse's tail, that the bone thereof may not go through the hole; with this sear the flesh, till it be encrusted; and in the searing you will clearly see the end of the vein start out like pap heads; but you must continue searing, till you see all that was moist, to be smooth, plain, and hard, so that the blood cannot break through the burning; then you may unloose the cord, and after two or three days, when you perceive the sore begin to rot, do not fail to anoint it with fresh butter, or hog's grease and turpentine, till it be healed.

CURVET. *See* CORVET.

CUT. To cut or geld a horse, is to render him impotent, after which he is called a gelding, by way of distinction from a stone-horse.

Commonly your roussons, (*i. e.* your strong, thick-bodied Dutch horses) are stone-horses, and not geldings.

The best way to cure a horse biting and kicking, is to geld him.

To CUT THE ROUND, OR CUT THE VOLT, is to change the hand when a horse works upon volts of one tread, so that dividing the volt in two, he turns and parts upon a right line to recommence another volt.

In this sort of manage the riding masters are wont to cry, cut the round.

CUTTING, OR INTERFERING, is when the feet of a horse interfere, or with the shoe one hoof beats off the skin from the pastern joint of another foot. This is occasioned by bad shoeing, weariness, weakness, or not knowing how to go, whereby the feet entangle.

DACE } FISHING; } These two fishes, as also
DARE } a roach, are much of the same

ſame kind, both in manner of feeding, cunning and goodneſs; and commonly in ſize.

The haunts of dace are gravelly, ſandy, and clayey bottoms; deep holes that are ſhaded; water-lily leaves, and under the foam cauſed by an eddy: in hot weather they are to be found on the ſhallow, and are then beſt taken with an artificial fly, graſshoppers, or gentles, as hereafter directed.

Dace ſpawn about the latter end of *March*, and are in ſeaſon about three weeks after; they are not very good till about *Michaelmas*, and are beſt in *February*.

Baits for dace, other than thoſe mentioned by WALTON, are the oak-worm, red-worm, brandling, gilt-tail, and indeed any worm bred on trees or buſhes, that is not too big for his mouth: almoſt all kinds of flies and caterpillars.

Though dace are as often caught with a float as roach, yet they are not ſo properly float fiſh; for they are to be taken with an artificial gnat, or ant-fly, or indeed almoſt any other ſmall fly in its ſeaſon: but in the *Thames*, above *Richmond*, the largeſt are caught with a natural green dun graſshopper, and ſometimes with gentles; with both which you are to fiſh, as with an artificial fly; they are not to be come at till about *September*, when the weeds begin to rot; but when you have found where they lie, which in a warm day is generally on the ſhallow, 'tis incredible what havock you may make: pinch off the firſt joint of the graſshopper's legs, put the point of the hook in at the head, and bring it out at the tail; and in this way of fiſhing you will catch chub, eſpecially if you throw under the boughs.

But this can be done only in a boat, for the management whereof be provided with a ſtaff, and a heavy ſtone faſtened to a ſtrong rope of four or five yards in length; faſten the rope to the head of the boat, which whether it be a punt or a wherry, is equally fit for this purpoſe, and ſo drive down with the ſtream: when you come to a ſhallow, or other places where the fiſh are likely to lie, drop the ſtone, and, ſtanding in the ſtern, throw right down the ſtream, and a little to the right and left: after trying about a quarter of an hour in a place, with the ſtaff puſh the boat about five yards down, and ſo throw again. Uſe a common fly line about ten yards long, with a ſtrong ſingle hair next the hook.

It is true, there is leſs certainty of catching in this way than with a float and ground bait; but to thoſe who live near the banks of that delightful river, between *Windſor* and *Iſleworth*, and who can take advantage of a ſtill, warm, gloomy day; to ſuch it will afford much more diverſion than the ordinary inartificial method of fiſhing in the deeps for roach and dace.

In fiſhing at bottom for roach and dace, uſe for ground-bait, bread ſoaked about an hour in water, and an equal quantity of bran; knead them to a tough conſiſtence, and make them up into balls, with a ſmall pebble in the middle, and throw theſe balls in, otherwiſe they will draw the fiſh beyond the reach of your line.

Fiſh for roach within ſix, and for dace within three inches near the bottom.

They will bite at any fly, but eſpecially at the ſtone caddis fly, or may fly, the latter end of *April*, and moſt part of *May*: it is an excellent bait, floating at top of the water: of which you may gather great quantities from the reeds and ſedge, by the water-ſide: or from hawthorn buſhes, that grow near the bank of a ſhallow gravel ſtream, upon which they greatly delight to hang: and alſo at ant-flies, of which the blackeſt are the beſt, found in mole-hills, *June*, *July*, *Auguſt*, and *September*; which you may preſerve for your uſe, by putting them alive into a glaſs bottle, having firſt put into it ſome of the moiſt earth from whence you gathered them, with ſome of the roots of the graſs of the ſaid hillocks, and laying a clod of earth over the bottle: but if you would preſerve them above a month, put them into a large runnet, which has been firſt waſhed with water and honey on the inſide, and then you may preſerve them three months: but the beſt time to make uſe of them, is when they ſwarm, which is generally about the latter end of *July*, and the beginning of *Auguſt*.

This ſort of fiſh, in a warm day, rarely refuſes a fly at the top of the water; but remember when you fiſh under water for him, it is beſt to be within a handful, or ſometimes more, of the ground.

But if you would find dace or dare in winter, then, about *All-hollow-tide*, wherever you ſee heaths, or ſandy grounds plowing up, follow the plough, and you will find a white worm, with a red head, as big as the top of a man's little finger, very ſoft; that is nothing but the ſpawn of a beetle; gather theſe, and put them into a veſſel, with ſome of the earth from whence they were taken, and you may keep them all the winter for an excellent bait.

DAPPLE-BLACK, is a black horſe, that in his black ſkin or hair has ſpots and marks which are yet blacker, and more ſhining, than the reſt of the ſkin.

When bay horſes have marks of a dark bay, we call them dapple bays.

DAY-NET. A net generally uſed for taking ſuch ſmall birds as play in the air, and will ſtoop either to prey, gig, or the like; as larks, linnets, buntings, &c. The time of the year for uſing this net, is from *Auguſt* to *November*; and the beſt time is very early in the morning: and it is to be obſerved, that the milder the air, and the brighter the ſun is, the better will be the ſport, and of longer continuance. The place where this net ſhould be laid, ought to be plain champagne, either on ſhort ſtubbles, green lays, or flat meadows, near corn fields, and ſomewhat remote from towns and villages: you muſt be ſure to let your net lie close to the ground, that the birds creep not out and make their eſcape.

The faſhion of this net is deſcribed in Plate V. Fig. 1. It is made of a fine packthread, with a ſmall meſh, not exceeding half an inch ſquare: it muſt be three fathom long, and but one broad; the ſhape is like the crow net, and it muſt be verged about after the ſame manner, with a ſmall but ſtrong cord, and the two ends extended upon two ſmall, long poles, ſuitable to the breadth

breadth of the net, with four ſtakes, tail-ſtrings, and drawing-lines.

This net is compoſed of two, which muſt be exactly alike; and are to be laid oppoſite to each-other, ſo even and cloſe, that when they are drawn and pulled over, the ſides muſt meet and touch each other.

You muſt ſtake this net down with ſtrong ſtakes, very ſtiff on their lines, ſo that you may with a nimble twitch caſt them to and fro at pleaſure; then faſten your drawing-cords, or hard-lines (of which there muſt be a dozen at leaſt, and each two yards long) to the upper end of the foremoſt ſtaves: and ſo extend them of ſuch a ſtraitneſs, that with a little ſtrength they may raiſe up the nets, and caſt them over.

Your net being thus laid, place your gigs, or playing wantons, about twenty or thirty paces beyond, and as much on this ſide your nets: theſe gigs muſt be faſtened to the tops of long poles, and turned into the wind, ſo as they may play to make a noiſe therein. Theſe gigs are a ſort of toys made of long gooſe-feathers, like ſhuttle-cocks, and with little ſmall tunnels of wood, running in broad and flat ſwan-quills, made round, like a ſmall hoop; and ſo with longer ſtrings faſtened to the pole, will, with any ſmall wind or air, move after ſuch manner, that birds will come in great flocks to play about them.

When you have placed your gigs, then place your ſtale; which is a ſmall ſtake of wood, to prick down in the earth, having in it a mortice-hole, in which a ſmall, long and ſlender piece of wood, about two feet long, is faſtened, ſo as it may move up and down at pleaſure: and faſten to this longer ſtick, a ſmall line, which running through a hole in the aforeſaid ſtick, and ſo coming up to the place where you are to ſit, you may, by drawing the line up and down with your right hand, raiſe up the longer ſtick from the ground, as you ſee occaſion.

Faſten a live lark, or ſuch like bird, to this longer ſtick, which with the line making it to ſtir up and down by your pulling, will entice the birds to come to your net.

There is another ſtale, or enticement, to draw on theſe birds, called a looking-glaſs; (*ſee Article* LARK) which is a round ſtake of wood, as big as a man's arm, made very ſharp at the end, to thruſt it into the ground: they make it very hollow in the upper part, above five fingers deep; into which hollow they place a three ſquare piece of wood, about a foot long, and each two inches broad, lying upon the top of the ſtake, and going with a foot in the hollowneſs: which ſaid foot muſt have a great knob at the top, and another at the bottom, with a deep ſlenderneſs between, to which ſlenderneſs you are to faſten a ſmall packthread, which running through a hole in the ſide of the ſtake, muſt come up to the place where you ſit. The three-ſquare piece of wood which lies on the top of the ſtake, muſt be of ſuch a true poiſe and evenneſs, and the foot in the ſocket ſo ſmooth and round, that it may whirl and turn round upon the leaſt touch; winding the packthread ſo many times about it, which being ſuddenly drawn and as ſuddenly let go, will keep the engine in a conſtant round motion: then faſten with glue, upon the uppermoſt flat ſquares of the three-ſquare piece, about twenty ſmall pieces of looking-glaſs, and paint all the ſquare wood between them, of a light and lively red; which in the continual motion will give ſuch a reflection, that the birds will play about to admiration until they are taken.

Both this and the other ſtale, are to be placed in the midſt between the two nets, about two or three feet diſtance from each other; ſo that in the falling of the nets, the cords may not touch or annoy them: neither muſt they ſtand one before or after another, the glaſs being kept in a continual motion, and the bird very often fluttering. Having placed your net in this manner, as alſo your gigs and ſtales, go to the further end of your long drawing-lines and ſtale-lines, and having placed yourſelf, lay the main drawing-line acroſs your thigh, and with your left, pull the ſtale-line to ſhew the birds; and when you perceive them to play near and about your nets and ſtales, then pull the net over with both hands with a quick, but not too haſty, motion; for otherwiſe your ſport will be ſpoiled.

You muſt always remember to lay behind you, where you ſit, all the ſpare inſtruments and implements to be uſed; as the ſtakes, poles, line, packthread, knitting-pin, and needle, your bag with ſtales, a mallet to knock in the ſtakes upon occaſion: and, laſtly, be ſure that the firſt half dozen of birds you take, be kept alive for ſtales; for you muſt not be unprovided therewith upon any account.

Having thus treated of the day-net, (the ſame being commonly uſed by all birdmen) I ſhall give the explanation of the ſeveral parts by letters, as exhibited, Plate V. Fig. 1.

A, ſhews the bodies of the main net, and how they ought to be laid. B, the tail-lines, or the hinder lines, ſtaked to the ground. C, the fore-lines, ſtaked alſo to the ground. D, the knitting-needle. E, the bird-ſtale. F, the looking-glaſs ſtale. G, the line which draws the bird-ſtale. H, the line that draws the glaſs-ſtale. I, the drawing double lines of the net which pulls them over. K, the ſtakes which ſtake down the four nether points of the net, and the two tail-lines. L, the ſtakes that ſtake down the fore-lines. M, the ſingle line, with the wooden button to pull the net over with. N, the ſtake that ſtaketh down the ſingle line, and where the man ſhould ſit. O, the wooden mallet. P, the hatchet: and Q, the gig.

DECEIVE; a horſe is ſaid to be deceived, upon a demivolt of one or two treads: when working (for inſtance) to the right, and not having yet finiſhed above half the demivolt, he is preſſed one time or motion forwards, with the inner legs, and then is put to a reprize upon the left, in the ſame cadence with which he begun; and thus he regains the place where the demivolt had been begun to the right, and works to the left.

Thus you may deceive a horſe upon any hand.

DECOY-

DECOY-BIRD, a bird made use of to call others of the same species to them: they are usually kept in a cage, and from thence decoy birds into the nets or snares prepared for them.

The hen partridge is the bird chiefly made use of in *France* for this purpose, which is placed at the end of balks, or ridges, where they spread their nets to draw in the cock that hears her.

DECOY-DUCK, a duck that flies abroad, and lights into company of wild ones; and by being become acquainted with them, by her allurements, she draws them into the decoy-place where they become a prey.

DECOY-POND, a place made on purpose, by the means of which great numbers of ducks, teal, &c. are drawn into a snare; and that by the subtilty of a few of their own kind, which, from the egg, are trained up to come to hand for the same purpose.

The manner of doing it, and the making the decoy pond, with the several apartments belonging to it, require a long discourse; but indeed no particular rules and directions can be given therein, as being variously made, according to the situation of the place, which must be considered: so that such persons who would make one, would do best to view some that are already made: they are frequent in divers parts of the kingdom, but especially in *Lincolnshire*, *Cambridgeshire*, and such fenny countries; for the ground must be moist, moorish, and fenny, with the conveniency, if possible, of a river running through or by it.

I shall therefore only say, that the place where those decoy ducks entice them, must not be very broad, but set thick on both sides with osiers, and there must be nets at the top, and entrance, to be set down by the man who is to attend it, and who, when he sees the ducks all entered in, draweth the net, by which means they are taken.

And great caution is to be used, that the nets are not let down till all the ducks are within the limits of the nets; for if any should escape, it would be very prejudicial, for such a duck, or ducks, would be shy, and scarcely be drawn into the like snare again, which would occasion others in the company to be shy too, and the decoy would be much prejudiced thereby.

DEAFNESS. The custom of cutting away the hair out of horses' ears in order to make them look better, subjects them to cold, and is frequently the cause of deafness for a time.

DEER, a wild beast of the forest. *See* STAG and HART.

DEER-HAYES, engines, or large nets, made of cords, to catch deer in.

DEER-NECKS IN HORSES. *See* NECKS.

DEFAULT, a term in hunting, when the hounds have lost their prey in their chase.

The chief considerations at default are, how long the hare has been on foot, and how far the hounds make it good? If she has not been run half her time (as near as judgment can be made) the huntsman must try expeditiously a wide circle, changing his dogs hard and quick on the highways, and so persist in trying circle within circle, till he returns to the place the dogs threw up at. On the other hand, if she has been drove hard three parts of her time, or is near dead run, she will only leap off a few rods, and *quat*, until one or other of the dogs jumps upon her. Therefore, in such case the huntsman needs only to try a small circle, not nimble, but slow and sure, with great caution and care, for the compass being so little, he has no occasion to draw so hasty about as if twice as large.

Take heed of talking too loud to the hounds, as there are dogs of shy, fearful tempers, that will scarce bear speaking to. Give me a dog of patience and good temper, that does not hunt because it is his business, but loves it naturally; one with a moderate voice and clear, that speaks to an old hound at default, quick, but not noisy, and cherishes him nimbly, very often, and in a tone that enforces life and courage, and compels him to stop perpetually.

Beware unhaunted ground, the inconveniency attending it will be too apparent; avoid likewise the prevailing fault of leaving the recovery to endeavour to prick; it is not the huntsman's business, but the company in the field; therefore he should not upon any account attempt it. For whilst he is moping about, the dogs throw up, not one in twenty has his nose to the ground. If it happens to be a long dead default, pay some regard, huntsmen, to the tender-nosed babbling dog you disregard in the morning; the delicacy of his nostrils may be susceptible of the scent a long time later than a stauncher hound. You have said such and such a dog deserves hanging, he will open at nothing at all, say you; but beware, my friend, if it is not the contrary, and owing to his superior excellence of scenting: for a hare that relieved at twelve at night, the tender hound you condemn will challenge cheerily next morning, and in the present disheartening case, if he does but open, it may encourage some stauncher hound to run in and stoop; which, after a long tedious default, he would not otherwise do. Huntsmen distressed, to make their dogs try and stoop (when it has been found which way the hare has baulked them) have wrung an old hound's ears so cleverly, he has roared as if he had hit upon a burning scent, which has invited the pack together, and given them such spirits, every dog has stooped and tried it.

On recovery, judgment may be made from the time the hare has run, and time she has *quat*, how long she may be likely to stand; the huntsman is never to quit the default whilst day-light and weather permit: if the hare is not killed or taken up, there is no good reason why it is not hit off, and it should be a standing maxim, that it is ever as easy to recover a lost hare as to start a fresh one.

By a long *quat*, after a moderate hunt, a hare often becomes stiff, therefore the hunters should press in upon the dogs, especially in covert; many hares are eat up by the hounds for want of forming some such judgment, and then the simple huntsman damns and swears at the dogs; whereas his own desert should be a cudgel for his stupidity, the hounds being entitled to every hare they hunt; it is the chief reward of their labour and merit.

There is another prevailing notion, very vulgar, much talked of, and less understood, that the longer a hare has been hunted, the weaker the scent grows. I never found such an alteration, and if any judgment is allowed to be made from the behaviour of the hounds, the old staunch dogs will be found to rate on, towards the conclusion of the hunt, with additional vigour, not from decay of scent, but the contrary; whence they become, every inch they go, more sensible of their near approach to the hare, than all the hunters in the field.

But should it be maintained, the smell does really decrease, the more a hare is pressed, what can it be owing to? To lay it down as fact, without offering some reason, is certainly a very arbitrary determination. Is it because she is run out of wind? If that is allowed, casuists, who maintain hounds hunt the foot, must give up the argument. For what reason can be assigned why a hare's feet, immediately before her death, do not leave as strong and equal scent as at starting.

Hares, or other creatures, hard run, perform their inspiration and expiration very quick, at least six times in proportion for once they otherwise would, if cool and not urged. Now, if six expirations, under severe pursuit, are equal to one, when a hare is just started, what difference can there be in the scent?

It may be alledged, the scent lies stronger at the first, because it makes its return from a full stomach, or that at starting the lungs having not suffered much from distention, she breathes free, which running low to the earth, intermixes better with the herbage. On the other hand, that a hare long hunted runs high, and of course emits her breath farther off from the surface, therefore more liable to be sooner separated, and overcome by wind and air.

To the first part I answer, the faster a hare runs, the longer she stretches; and the lower she lies to the ground, the farther the hounds are behind; and her breath (though expired ever so free) remains a long time, in proportion to the distance before the dogs come up to enjoy it.

In the second place, the hard-hunted hare makes her stretches shorter, which brings her body naturally more upright and high from the surface, and the scent hereby is more liable to be sooner overcome by wind and weather. But then as she breathes quick in proportion, and shortens her pace in a sensible degree, the hounds, so much as she shortens, so much do they hasten, being drawn on by increasing scent, even until madam feels them at her heels.

Another reason, more natural and easy than either of the aforesaid, why a hare, towards the end of the hunt, is often difficult to be killed, is, that if she holds her circuit, she confines her works in a much shorter compass, doubles here and there over and over; shifts, redoubles, and tries all places for rest and security, making a great deal of foiling in a little space, which variety of equal scent puzzles the dogs exceedingly.

DEMI-VOLT. *See* VOLT.

DESULTOR. A vaulter or leaper, who, leading one horse by the bridle, and riding another, jumped from the back of one to the other, as the ancient custom was after they had run several courses or heats. This practice required great dexterity, being performed before the use of either saddles or stirrups. The custom was practised in the army, when necessity required it; but chiefly among the *Numidians*, who always carried two horses, at least, with them for that purpose, changing them as they tired. The Hussars have still some remains of it; and we now see the most dexterous feats of this kind, that perhaps were ever known in any age or nation, performed by our countrymen, Mr. ASTLEY, Mr. HUGHES, *&c.*

DEVUIDER, a term in the academies, applied to a horse, that in working upon volts, makes his shoulders go too fast for the croup to follow; so that instead of going upon two treads, as he ought, he endeavours to go only upon one: which comes from the resistance he makes in defending against the heels, or from the fault of the horseman, that is too hasty with his hand. *See* HASTEN.

DIABETES, or involuntary discharge of urine.

A diabetes is, when a horse pisses thin and pale urine, and that frequently, and in greater quantity than is proportioned to what he drinks; if this disease continues, it soon proves fatal; and, indeed, it is rarely cured; for the horse soon loses his flesh, his appetite decreases, his strength fails, and death speedily ensues. It may be noted, that some young horses, when they are backed, piss themselves through fear, and pass a great quantity; but in this case, gentle usage is all that is requisite.

If a cure is attempted, (which sometimes is successful in young horses) let the food be dry, and such as requires the least water; as meshes, and corn sprinkled with water: and what little hay is given should be of the best sort, and given often in small quantities, well sprinkled with water.

Make fresh lime-water three times a day: as soon as it clears, and before it cools, give a quart of the clear water each time, and every night and morning give the following:

Take of Peruvian bark, finely powdered, an ounce and an half; roach allum, half an ounce; treacle enough to make a ball.

If these do not succeed, give a quart of allum posset, three times a day, instead of lime water.

Lime-Water.

Take of quick-lime, that is light and but lately burnt, one pound; put it into an earthen vessel, and pour upon it two gallons of water; let them stand until the lime is settled, then the clear water may be poured off, and must be kept well corked in bottles, if not immediately used.

Alum-Posset.

Take a pint of milk, and two drachms of alum finely powdered; boil them together, until the curd is well separated; then pour off the thin liquor, which is called whey, or posset.

Any other astringents, except alum, should not be freely

freely used; for by making the body costive, they increase the discharge by urine.

DIAPHRAGM. *See* PLEURA.

DIET OF HORSES must of course depend on the produce and circumstances of the different countries. The horse, although universally a graniverous animal, yet varies in a degree, from the general rule of his nature, in some countries: amongst the Tartars, and other inhabitants of the frozen regions of the north, he is said to be fed during the winter season upon fish.

The natural food of the horse is the simple herbage of the field, grass, and on that alone he can be constantly kept in the highest state of health and vigour, so long as he shall not be required to labour; and whilst he is employed in labour, grass in some form, either dried or green, seems absolutely necessary to his maintenance in a healthy state. Hay, straw, and corn of the various kinds, have been from the earliest times the common food of horses; but in *England*, and indeed *France* and *Germany*, during latter periods especially, they have rejected all other species of horse corn, from a well grounded preference in favour of oats and beans, the latter for draught-horses chiefly, or as substantial auxiliaries to the oats: oats imparting as strong a nourishment as the constitution of the horse will properly bear, are at the same time of an obstersive and cleansing nature, and are, moreover, the best and cheapest indoor fattening for almost all animals.

The species of corn usually given to horses in many countries is barley, and the bulky provender, straw; both which, in warm climes, are said to be nearly equal in nutriment to our hay and oats. With us, barley is apt to scour horses and make their stale red like blood. Wheat is often given to the horses of the great upon the continent; and it is said, when PHILIP of *Spain* was in this country, his jennets were fed upon wheat during a time of scarcity, which gave umbrage to the people.

There seems to exist no perceptible difference of quality between the white and the black oat, being equal in weight and thinness of shell: those, and their being short, plump, and free from tail, are their well-known criterions of goodness; it is equally well known, they should be some months old when used. New beans are improper for horses, swelling in their maw, and griping them in a very dangerous manner. The remedy is to dry them on a kiln. Old beans should be split, and given either with bran or chaff. Cart-horses have been near seven years fed upon beans, without finding any detrimental effect therefrom; but the horses laboured excessive hard. Beans contain more solid nutriment than oats, but of a less salubrious nature.

Grains constantly used, loosen a horse, and impoverish his blood; bran scours and weakens the entrails; both of them are good occasional dietetic alteratives.

Carrots are said to purify and sweeten the blood, to amend the wind, and to replenish after the wastings occasioned by disease, or inordinate labour. Some have been accustomed to use them for years, in all forms, and to all descriptions of horses. They are either given in spring and autumn, to high-fed horses, as a change of diet, at the rate of one feed *per* day, in lieu of a feed of corn, or as full subsistence to others. They ought to be washed clean, and, if large, cut into flat and sizeable pieces. They are occasionally to be purchased in the London markets, at a price sufficiently moderate for horse food, perhaps at ten-pence *per* bushel. The quantity for a feed is from half a peck to a peck.

The orderly periods of feeding with corn, in this country, are morning, noon, and night; the quantities each time either a quarter, or half a peck, with, or without, about two handfuls of beans, according to the horse's state of body. Much greater care than is common, ought to be had to sifting the oats clean from dust, and dung of mice. Water should be allowed without fail twice a day How well soever a horse may shift with little or no water, whilst abroad and feeding upon succulent meat, it is indispensible to him in the stable; and ofttimes much mischief ensues from its being withheld: costiveness, inflammation, gripes, and the various consequent morbid derivatives; perpetual longing, and the danger of excess upon every opportunity.

The well-known use of hay is to dilate the body of the horse, to satisfy his appetite with bulk and quantity, as corn does with compact and solid nutriment. English hay, the best in the world, it is true, contains great nourishment, and will keep a horse, and even fat him; but he is unable to labour upon hay alone, and BRACKEN observes, that it injures the sight of horses to keep them so, in particular if suddenly taken from good keep and full feeding. Hard upland hay is the proper kind for nags and coach-horses, and it ought to be of fine colour, fragrant smell, and full of flower. Clover hay, and that of the artificial grasses in general, from its grossness, is appropriate to cart-horses. Without attempting to ascertain the precise quantity, it may be said, that hay should be given as often as a horse has a keen appetite for it; but great care should be taken, that so much be never allowed at once, that he leave, and blow upon it. There lies the secret, even in fatting animals to profit; a thing not so often done as supposed. At night a considerable quantity of hay is left in the rack, absolutely necessary, no doubt, to hard-working horses, whose most leisure time for feeding is the night; of the propriety of the measure, for horses kept in a state of luxury,

"Fasting is nature's scavenger.

The ancients, according to XENOPHON, fed their horses but twice a day; the modern Turks, Arabians, and Moors, feed only once with corn, that is, barley; or as some assert, only once in twenty-four hours, when they allow three or four pounds of barley, feeding in the interval with straw, but very little hay, which in those countries is hard to be procured. CAMERARIUS, who really seems to have deserved to ride a good horse, from his liberal manner of feeding, directs six double pugils, or handfuls of oats, or barley, to be administered three times a day, the last, or night-feed, to be somewhat the largest. This may be estimated at about a peck and a half *per* day. His daily routine of diet is the following. At first going to stable in the morning, give a feed of corn, but no hay. At nine o'clock give him a lock of well-dusted hay, which

which being eaten, water the horse: leave a farther supply of hay, and return at twelve to give the noon-feed of corn. At three give more hay, and suffer him to drink again. At night offer him water previous to his last meal. VEGETIUS and BLUNDEVILLE advise to feed a horse in small portions at a time, particularly with the coarse and rough garbage, which it is the custom to give to cart horses, lest, by filling themselves too suddenly and greedily, digestion be impeded, and surfeit ensue. Assuredly, we have little fault to find with the old writers in this important respect.

DIGGING A BADGER, is dislodging or raising him out of the earth.

DIMNESS OF SIGHT, a disorder in horses, proceeding from blood-shotten eyes. If the ball of the eye be sound, the cure is effected by keeping the horse warm, with a hood of linen cloth fitted to his head, and anointing the eye-lids twice a day, with a composition of sugar-candy, honey, and white rose-water. In two or three days the eyes will be well again; after which, the creature should be blooded. In this disorder you ought by no means to clip or meddle with the bladders on any part of the eye.

DISARMING THE LIPS OF A HORSE, is the preventing them from taking off the true pressure or *appui* of the mouth, when they happen to be so large as to cover the bars.

DISARM; to disarm the lips of a horse, is to keep them subject, and out from above the bars, when they are so large as to cover the bars, and prevent the true pressure, or *appui* of the mouth, by bearing up the bitt, and so hindering the horse from feeling the effects of it upon the bars.

Give your horse a bitt with a cannon croup or cut, which will disarm his lips; or else put the olives upon him, which will have the same effect.

To DISGORGE, is to discuss, or disperse an inflammation or swelling. Hence they say,

Your horse's legs are gorged, or swelled; you must walk him out to disgorge them.

DISUNITE: a horse is said to disunite, that drags his haunches, that gallops false, or upon an ill foot. *See* GALLOP FALSE.

DOCK, (or Troussequeve) is a large case of leather, as long as the dock of a horse's tail, which serves as a cover to the tail of leaping horses; and is made fast by straps to the crupper, having leather thongs that pass between the thighs, and along the flanks to the saddle-straps, in order to keep the tail tight, to hinder it from whisking about, to make the horse appear broader at the croup.

DOCK, (with Hunters) the fleshy part of a boar's chine, between the middle and the buttock: also, the stump of a beast's tail.

DOCKING HORSES. *See* CURTAILING.

DOCK-PIECE OF A HORSE, should be large and full, rather than too small: if a horse gall beneath the dock, grease the part every day, and wash it with salt and water, or good brandy, but the latter is the most effectual remedy, if the horse will endure it.

DOGS; a dog is a domestic animal, made use of for the guard of a house, and for hunting: the dog is the symbol of fidelity, and amongst all irrational animals, may deservedly claim a most particular preference, both for their love and services to mankind; using humiliations and prostrations, as the only means to pacify their angry masters who beat them, and turn revenge after beating into a more fervent love.

The dog is the only animal whose fidelity is unshaken; almost the only one who knows name, and answers to the domestic call; the only one that, when he misses his master, expresses his loss by his complaints; and almost the only one who can readily find his way home, after he has been carried to a distant place. These useful creatures guard our houses, gardens, and cattle, with spirit and vigilance. By their help we are enabled to take not only beasts, but birds; and to pursue game both over land and through the waters. The dog, of all animals, is the most susceptible of change in its form; the varieties of this quadruped being too many for even the most careful describer to mention; each will mix with the other, and consequently varieties are produced still more unlike the original stock. The climate, the food, and the education, continue to make strong impressions upon this animal, and produce alterations in its shape, colour, hair, and size; and in every thing but its nature. The same dog carried from one climate to another seems to become a different animal; and different breeds appear to be as much separated as any two animals the most distinct in nature. In short, they are in every thing different, except the conformation of their internal parts, and that it is which distinguishes the species, and keeps them distinct from all others.

Dr. CAIUS, a physician in Queen ELIZABETH'S reign, has given the following systematical arrangement of British dogs.

- I. The most generous kinds.
  - Dogs of chase.
    - Hounds.
      - Terrier,
      - Harrier,
      - Bloodhound,
    - Gazehound,
    - Greyhound,
    - Leviner, or Lyemmer,
    - Tumbler,
  - Lap. Fowlers.
    - Spaniel,
    - Setter,
    - Water-spaniel, or finder,
  - Spanish gentle, or comforter,
- II. Farm dogs.
  - Shepherd's-dog,
  - Mastiff, or ban-dog,
- III. Mongrels.
  - Wappe,
  - Turnsp,
  - Dancer.

For the penalty of stealing dogs, see GAME LAWS.

As

As there is no country in the world where there is not plenty of dogs, so no animals can boast of a greater variety, both in kind and shape; some being for buck, others for bear, bull, boar, and some for the hare, coney, and hedge-hog, while others are for other uses, according to their various natures, properties, and kinds; neither are the uses and kinds of them so general, but their bringing up is also as easy, there being no great regard to be had as to their food, for they will eat any thing but the flesh of their own species, which cannot be so dressed by the art of man, but they will find it out by their smelling, and so avoid it.

Because some authors seem to lay a stress upon the colour of dogs, we shall insert in as short a manner as possible what they say, and begin with the white coloured dogs; which for the most part are not good to run after all sorts of beasts, but are excellent for the stag, especially if they be all over white; that is, pupped without any spot upon them: and experience has taught people to put a value upon such dogs, by reason of the natural instinct they have to perform every thing well they are designed for before curious hunters, having admirable noses, and very good at stratagems: in short, these dogs are valued because they are naturally less subject to diseases than others, by reason of the predominancy of phlegm in them, which gives them a good temperament of body.

A black hound is not to be despised, especially if marked with white, and not red spots; seeing this whiteness proceeds from a phlegmatic constitution, which hinders him from forgetting the lesson he is taught, and makes him obedient; whereas dogs that have red spots, are for the most part very fiery, and hard to be managed, by reason of the bilious humour that prevails, and causes this irregularity within them: and therefore a black dog with white spots is valuable, being usually hardy enough, will hunt well, is strong and swift, and holds out a long time: he will not forsake the chase, and when you are beating the water for sport, he will not be frightened at it: and lastly, he is the more esteemed, because those distempers incident to dogs, seldom befall him.

There are some grey coloured dogs that are good, and others you ought not to meddle with; that is, mongrels, which come from a hound-bitch that has been lined by a dog of another kind, or from a bitch of another kind that has been lined by a hound: hounds cannot be good if they do not entirely retain the nature that is peculiar to them; and when they do, grey dogs are to be coveted, because they are cunning, never faulter, and grow not discouraged in the quest. 'Tis true, their sense of smelling is not so exquisite as that of those before mentioned, but they have other qualities which make amends for it; for they are indefatigable in hunting, being of a robuster nature than others, and heat and cold, which they fear not, is alike to them.

Yellow dogs, are those which have red hairs inclining to brown; and as choler is the most predominant humour in this animal, so he is found to be of a giddy nature, and impatient, when the beast he follows makes turns, seeing he still runs forward to find him, which is a great fault; and therefore they are seldom made use of to hunt any other than the wolf, or such black beasts as are rarely inclined to turnings; they are too swift, open but very little, especially in very hot weather; they are naturally impatient, and therefore hard to be taught, as they are uneasy under correction. They are more subject to diseases than other dogs, by reason of that over fierceness of temper, which makes them hunt beyond their strength.

As to the proportions, sizes, and features of dogs, Mr. LIGER says, the large, tall, and big hounds, called and known by the name of the deep-mouthed, or southern-hound, are heavy and slow, and fit for wood-lands, and hilly countries; they are of deep mouth, and swift spenders: they are generally lighter behind than before, with thick short legs, and are generally great of body and head, and are most proper for such as delight to follow them on foot at stop-hunting, as some call it; but by most is termed hunting under the pole: that is, they are brought to that exactness of command, that in the hottest scent, and fullest chase, if one but step before them, or hollow, or but hold up or throw before them the hunting pole, they will stop in an instant, and hunt in full cry after you, at your own pace, until you give them encouragement by word of command; which much adds to the length of the sport, and pleasure of the hunters, so that a course oftentimes lasteth five or six hours.

Opposite to the deep-mouthed, or southern-hound, are the long and slender hounds, called the fleet, or northern-hounds; which are very swift, as not being of so heavy a body, nor having such large ears: these will exercise your horses, and try their strength; they are proper for open, level, and champagne countries, where they may run in view, and full speed; for they hunt more by the eye than by the nose, and will run down a hare in an hour, and sometimes sooner: but the fox will exercise them longer and better.

Between these two extremes, there are a middle sort of dogs, which partake of both their qualities as to strength and swiftness, in a reasonable proportion: they are generally bred by crossing the strains, and are excellent in such countries as are mixed, viz. some mountains, some inclosures, some plains, and some woodlands; for they will go through thick and thin, neither need they be helped over hedges, as the huntsmen are often forced to do by others.

A true, right shaped, deep-mouthed hound, should have a round, thick head, wide nostrils, open and rising upwards, his ears long and thin, hanging lower than his chops; the fleeces of his upper lip should be longer than those of his nether chops, the chine of his back great and thick, straight and long, and rather bending out than inclining in: his thighs well trussed, his haunches large, his fillets round and large, his tail or stern strong set on, waxing taperwise towards the top, his hair under his belly rough and long, his ears large and lean, his feet dry and hard, with strong claws and high knuckles; in the whole, he ought to be of so just a symmetry, that when he stands level, you may discern which is highest, his fore or hinder parts.

For

For the northern, or fleet-hound, his head and nose ought to be slender and longer, his back broad, his belly gaunt, his joints long, and his ears thicker and shorter; in a word, he is in all parts slighter made, and framed after the mould of a grey-hound.

By crossing those breeds, as before observed, you may bring your kennel to such a composition as you think fit, every man's fancy being to be preferred; and it is a well known saying,

So many men, so many minds;
So many hounds, so many kinds.

Though I shall refer the reader to the diseases incident to dogs, under their respective heads; their being bitten or stung by some venomous creatures, and others not being easily reducible to an article by itself, it shall be added here: As when they are stung by some adder, or other insect of that nature, you must take an handful of the herb of cross-wort, gentian, and as much rue, the same quantity of *Spanish* pepper, thin broth, ends of broom and mint, of all an equal quantity; when that is done, take some white-wine, and make a decoction of the whole, letting it boil for an hour in a pot: then strain the whole, into which put an ounce of dissolved treacle, and let the dog swallow it, and observe how to wash the bite therewith: if a dog is bitten by a fox, anoint it with oil wherein you have boiled some rue and worms.

To cure the Bites and Stings of venomous Creatures.

If dogs, &c. are bitten by any venomous creatures, as snakes, adders, &c. squeeze out the blood, and wash the place with salt and urine; then lay a plaister to it, made of calamint pounded in a mortar with turpentine and yellow wax, till it come to a salve. If you give your dog some juice of calamint to drink in milk, it will be good; or an ounce of treacle dissolved in some sweet wine. *For more see* VENOMOUS BITES.

Rules to be observed for keeping Dogs in Health.

As pointers and spaniels, when good of their kind and well broken, are very valuable to a sportsman, it is worth while to take some care to preserve them in health. This very much depends on their diet and lodging; frequent cleaning their kennels, and giving them fresh straw to lie on is very necessary; or in summer time, deal shavings instead of straw, or sand in hot weather will check the breeding of fleas. If you rub your dog with chalk, and brush and comb him once or twice a week, he will thrive much the better; the chalk will clear his skin from all greasiness, and he will be the less liable to be mangy. A dog is of a very hot nature: he should therefore never be without clean water by him, that he may drink when he is thirsty. In regard to their food, carrion is by no means proper for them. It must hurt their sense of smelling, on which the excellence of these dogs greatly depends. Barley meal, the dross of wheat-flour, or both mixed together, with broth or skim'd milk, is very proper food. For change, a small quantity of greaves from which the tallow is pressed by the chandlers, mixed with their flour; or sheep's feet well baked or boiled, are a very good diet, and when you indulge them with flesh it should always be boiled. In the season of hunting your dogs, it is proper to feed them in the evening before, and give them nothing in the morning you take them out, except a little milk. If you stop for your own refreshment in the day, you should also refresh your dogs with a little milk and bread. It has already been observed, that dogs are of a hot constitution; the greatest relief to them in the summer is twitch grass, or dog grass, which is the same thing. You should therefore plant some of it in a place you can turn them into every morning; they will feed freely on it, be cured of the sickness they are subject to, and preserved from any extraordinary heat of the blood: but unless the grass be of this sort, it is of no effect. If you be not acquainted with it, any gardener can furnish you with enough to plant, as it is a nuisance to them, and it's roots run so quick through the ground as to injure their crops.

On the Mange and its Cures.

Dogs are subject to the mange from being fed too high, and allowed no exercise, or an opportunity of refreshing themselves with dog grass, or by being starving at home; which will cause them to eat the vilest stuff abroad, such as carrion, or even human excrement: either of these will heat their blood to a degree, which will have a tendency to make them mangy. The cure may be effected by giving stone-brimstone powdered fine, either in milk or mixed up with butter, and rubbing them well every day for a week with an ointment made of some of the brimstone and pork lard, to which add a small quantity of oil of turpentine.

Another medicine, Boil four ounces of quick-silver in two quarts of water to half the quantity, bathe him every day with this water, and let him have some of it to lick, 'till the cure be perfected. Or a small quantity of troopers ointment rubbed on the parts on its first appearance will cure it. It will also free lousy puppies from their lice. Or euphorb album two ounces, flour of sulphur, Flanders oil of bays, and soft soap, each four ounces. Anoint and rub your dog with it every other day: give him warm milk and no water. The cure will be performed in about a week. *See* MANGE.

On Poison of Dogs, and its Cure.

If you suspect your dog to be poisoned with nux vomica (the poison commonly made use of by warreners, which usually causes convulsive fits and soon kills;) the most effectual remedy, if immediately applied, is to give him a good deal of common salt; to administer which you may force open his mouth, and put a stick across to prevent his shutting it, whilst you cram his throat full of salt, at the same time holding his mouth upwards; and it will dissolve so that a sufficient quantity will be swallowed to purge and vomit him. When his stomach is sufficiently cleared by a free passage obtained by stool, give him some warm broth frequently, to prevent his expiring from faintness; and he will recover.

cover. This ſucceſs I have experienced: I have alſo met with this preſcription: As ſoon as you ſuſpect your dog to be poiſoned, give him a common ſpoonful of the oil of *Engliſh* pitch, if a large dog, or in proportion if leſſer; which, 'tis ſaid, will carry off the malignity of the poiſon the ſame day. But of this medicine I have not had an opportunity of making trial.

To deſtroy Worms in Dogs.

Dogs are very frequently troubled with worms; but more particularly whilſt they are young: any thing bitter is ſo nauſeous to theſe worms, that they are very often voided by taking two or three purges of aloes, or (which is the ſame thing) *Scots* pills, four or five being a doſe for a large dog; this is to be repeated two or three times a week. If this does not ſucceed, you may give him an ounce of powder of tin mixed up with butter, in three doſes, which ſeldom fails to cure. Or of the herb ſavin dried and rubbed to powder, give about as much as will lay on a ſhilling for a doſe; which will entirely deſtroy worms and their ſeed.

On Madneſs of Dogs, and its Antidote.
See DOG-MADNESS.

To preſerve the Feet of your Dogs from Lameneſs.

A pointer ought not to be hunted oftener than two or three days in a week: and unleſs you take care of his feet and give him good lodging as well as proper food, he will not be able to perform that through the ſeaſon. You ſhould therefore, after a hard day's hunting, waſh his feet with warm water and ſalt, and when dry waſh them with warm broth, or beer and butter, which will heal the ſoreneſs, and prevent a ſettled ſtiffneſs from fixing.

For Strains, Blows, or ſmall Wounds in Dogs.

If your dog has received any little wounds by forcing through hedges, or gets any lameneſs from a blow or ſtrain; bathe the wound or grieved part with ſalt and cold vinegar (for warming it only evaporates the fine ſpirit) and when dry, if a wound, you may pour in it a little Fryar's Balſam, which will perform the cure ſooner than any method that I have experienced.

On Coughs, and Colds of Dogs.

Dogs are very ſubject to a cough, with very extraordinary choaking, which is often thought to ariſe from a cold or ſome inward diſorder; and I think it is often occaſioned by their eating of fiſh bones. To guard againſt it, order your ſervants to throw all ſuch fiſh bones where the dog can't get at them. But if the diſorder be from a cold, let bleeding be repeated in ſmall quantities, if neceſſary; but if it be what is called the diſtemper in dogs, and they appear very low in ſpirits, bleeding is better omitted. Let meat broth or milk broth warmed be the chief of his diet, and the following medicine: Take flour of ſulphur, cold drawn linſeed oil and ſalt-petre, of each one ounce; divide it into four doſes, giving him one doſe every other day; and let him have plenty of clean ſtraw to lie on. Or one ſpoonful of honey daily.

DOG-MADNESS. A diſtemper very common among all ſorts of dogs; there are no leſs than ſeven ſorts of madneſs, amongſt which ſome are eſteemed incurable; but before we proceed to particulars, it will be neceſſary to ſhew how it comes, and what are it's firſt ſymptoms.

The firſt cauſe proceeds from high feeding, want of exerciſe, fulneſs of blood and coſtiveneſs: as for the two firſt, you muſt obſerve when you hunt them, that they ſhould be better fed than when they reſt, and let them be neither too fat nor too lean, but of the two rather fatter than lean, by which means they will not only be preſerved from madneſs, but alſo from the mange and ſcab; which diſeaſes they will be ſubject to for want of air, water, or exerciſe: but if you have the knowledge to keep them in an even temper, they may live long and continue ſound; as for water, they ſhould be their own carvers; but for exerciſe and diet, it muſt be ordered according to diſcretion, obſerving a medium; and for the latter, give him once a week, eſpecially in the heat of the year, five or ſix ſpoonfuls of ſallad oil, which will cleanſe them: if at other times they have the quantity given them of a hazle-nut of mithridate, it is an excellent thing to prevent diſeaſe, and it is very good to bleed them under the tongue, and behind the ears. But if madneſs has ſeized them before you perceive it, they muſt be removed from the reſt, for fear of an infection, and go to work with the reſt.

The ſymptoms of this diſeaſe are many and eaſily diſcerned; when any dog ſeparates himſelf contrary to his former uſe, becomes melancholy or droops his head, forbears eating, and as he runs ſnatches at every thing; if he often looks upwards, and that his ſtern at his ſetting on be a little erect, and the reſt hanging down; if his eyes be red, his breath ſtrong, his voice hoarſe, and that he drivels and foams at the mouth; you may be aſſured he has this diſtemper.

The ſeven ſorts of madneſs are as follow; of which the two firſt are incurable, viz. the hot burning madneſs, and running madneſs; they are both very dangerous; for all things they bite and draw blood from will have the ſame diſtemper: they generally ſeize on all they meet with, but chiefly on dogs: their pain is ſo great it ſoon kills them. The five curable madneſſes are:

Sleeping madneſs, ſo called from the dog's great drowſineſs, and almoſt continual ſleeping; this is cauſed by the little worms that breed in the mouth of the ſtomach from corrupt humours, vapours, and fumes which aſcend to the head: for cure of which, take ſix ounces of the juice of wormwood, two ounces of the powder of hartſhorn burnt, and two drachms of agaric, mix all theſe together in a little white wine, and give it the dog to drink in a drenching horn.

Dumb madneſs lies alſo in the blood, and cauſes the dog not to feed, but to hold his mouth always wide open, frequently putting his feet to his mouth, as if he had a bone in his throat: to cure this, take the juice of

of black hellebore, the juice of *ſpatula patrida*, and of rue, of each four ounces; ſtrain them well, and put therein two drachms of unprepared ſcammony, and being mixed well together, put it down the dog's throat with a drenching horn, keeping his head up for ſome time, leſt he caſt it out again; then bleed him in the mouth, by cutting two or three veins in the gums.

It is ſaid, that about eight drachms of the juice of an herb called hartſhorn, or dog's tooth, being given to the dog, cures all ſorts of madneſs.

Lank madneſs, is ſo called by reaſon of the dog's leanneſs and pining away: for cure, give them a purge as before directed, and alſo bleed them: but ſome ſay there is no cure for it.

Rheumatic, or Slavering madneſs, occaſions the dog's head to ſwell, his eyes to look yellow, and he will be always ſlavering and drivelling at the mouth; to cure which take four ounces of the powder of the roots of pollibody of the oak, ſix ounces of the juice of fennel roots, with the like quantity of the roots of miſletoe, and four ounces of the juice of ivy: boil all theſe together in white wine, and give it to the dog as hot as he can take it, in a drenching horn.

Falling madneſs, is ſo termed, becauſe it lies in the dog's head, and makes him reel as he goes, and to fall down: for cure, take four ounces of the juice of briony, and the ſame quantity of the juice of peony, with four drachms of ſtaveſacre pulverized: mix theſe together and give it the dog in a drenching horn; alſo let him blood in the ears, and in the two veins that come down his ſhoulders; and indeed bleeding is neceſſary for all ſorts of madneſs in dogs.

To prevent dogs from being mad, that are bittten by mad dogs, is done by bathing them: in order to which take a barrel or bucking tub full of water, into which put about a buſhel and a half of ſoot, which muſt be ſtirred well, that it may be diſſolved; then put in the dog that is bitten, and plunge him over head and ears ſeven or eight times therein, and it will prevent his being mad; but he ſhould alſo be blooded.

When dogs happen to be bit as aforeſaid, there is nothing better than their licking the place with their own tongues, if they can reach it; if not, then let it be waſhed with butter and vinegar made lukewarm, and let it afterwards be anointed with *Venice* turpentine; it is alſo good to piſs often on the wound; but above all take the juice of the ſtalks of ſtrong tobacco boiled in water, and bathe the place therewith; alſo waſh him in ſea water, or water artificially made ſalt: give him likewiſe a little mithridate inwardly in two or three ſpoonfuls of ſack, and ſo keep him apart, and if you find him after ſome time ſtill to droop, the beſt way is to hang him.

It may not be amiſs to add what a late author adviſes one who keeps a dog, which is, to have him wormed, a thing of but little trouble and charge, and what he believes would prevent their being mad; and if they are, he is of opinion that it prevents their biting any other creature; for he aſſerts he had three dogs bit by mad dogs, at three ſeveral times; they were wormed, and though they died mad, yet they did not bite nor do miſchief to any thing he had: and having a mind to make a full experiment of it, he ſhut one of them up in a kennel, and put to him a dog he did not value: that the mad dog would often run at the other dog to bite him; but he found his tongue ſo much ſwelled in his mouth, that he could not make his teeth meet: that that dog, though he kept him with the mad dog till he died, yet did not ail any thing; he kept him two years afterwards, and gave him no remedies to prevent any harm which might come from the biting of the mad dog.

But as there are ſeveral ſorts of madneſs in dogs, he was not certain whether the effects were the ſame in all; but his dogs ſeemed to die of the black madneſs, which is reckoned the moſt dangerous, and therefore he could not tell how far the following receipt might be effectual in all ſorts of madneſs, though it had not failed in curing all the dogs that he gave it to which were bitten, and all thoſe he gave it not to died.

The remedy is this: Take white hellebore and grate it to powder, which muſt be mixed with butter, and given to the dog: the doſe muſt be proportioned to the ſize of the dog; to a very ſmall lap-dog you may give three grains, to a large maſtiff ſixteen grains, and ſo in proportion to other ſizes. He adds, that the beſt way is, to give him a ſmall quantity at firſt, that it may be increaſed as it is found to work, or not to work; but that as it is a ſtrong vomit, and will make the dogs ſick for a little time, ſo they muſt be kept warm that day it is given them, and the next night, and they muſt not have cold water; but when it has done working, towards the afternoon give them ſome warm broth, and the next morning give them the ſame before you let them out of the houſe or kennel.

The ſame author ſays, this is an extraordinary remedy for the mange; that he never knew three doſes fail of curing any dog that had it, except he had a ſurfeit with it; which if he had, let him blood alſo, and anoint him two or three times over with gunpowder and ſoap, beat up together, and it will cure him.

It is aſſerted by a gentleman that he has cured ſeveral creatures that have been bit by mad dogs, with only giving them the middle yellow bark of buckthorn, which muſt be boiled in ale for a horſe or a cow, and in milk for a dog; and that being bit by one himſelf, he ventured to take nothing elſe: but that it muſt be boiled till it is as bitter as you can take it.

The Choice of a DOG *and* BITCH *for breeding good* WHELPS.

The bitch ought to be one of a good kind, being ſtrong and well proportioned in all parts, having her ribs and flanks great and large.

Let the dog that lines her be of a good breed; and let him be young, if you intend to have light and hot hounds; for if the dog be old, the whelps will participate of his dull and heavy nature.

If your bitch does not grow proud of her own accord, ſo ſoon as you would have, you may make her ſo by giving her the following broth:

Boil

Boil two heads of garlic, half a castor's stone, the juice of cresses, and about twelve *Spanish* flies, in a pipkin that holds a pint, together with some mutton, and make broth of it; and give of this to the bitch two or three times, and she will not fail to grow proud, and the same pottage given to the dog will make him inclinable to copulation.

After your bitch has been lined and is with puppy, you must not let her hunt, for that will be the way to make her cast her whelps: but let her walk up and down unconfined in the house and court; never locking her up in her kennel; for she is then impatient of food, and therefore you must give her some hot broth once a day.

If you would spay your bitch, it must be done before she has ever had a litter of whelps; and in spaying her take not away all the roots and strings of the veins: for if you do it will much prejudice her reins, and hinder her swiftness ever after: but by leaving some behind, it will make her much the stronger and more hardy.

But by no means spay her while she is proud, for that will endanger her life: but you may do it fifteen days after; but the best time of all is when the whelps are shaped within her. *For more see* POINTER, GREYHOUND, SPANIEL, *&c.*

DOG-DRAW (in the forest law) a term used when a man is found drawing after a deer by the scent of a hound, which he leads in his hand. *See* BACK-BEROND.

DOLE FISH. That fish which the fishermen, employed annually in the north seas, usually receive for their allowance.

DORING } *See* CLAP-NET *and* LARK.
DARING }

DOTTEREL. A bird so named from it's doting foolishness, in imitating the actions of the fowlers, till it be catched in the net; of these birds there are many in *Lincolnshire*.

To DOUBLE (Hunting term) used of a hare who is said to double, when she keeps in plain fields, and winds about to deceive the hounds.

DOUBLE VAULT. *See* VAULT.

DOUBLE, TO DOUBLE THE REINS: a horse doubles his reins when he leaps several times together to throw his rider.

This Ramingue doubles his reins and makes pontlevis. *See* PONTLEVIS.

DOVE, RING. The beak of this bird is yellow, its feet naked and red, its legs feathered almost down to the feet. The head, back, and coverts of the wings, are of a bluish ash-colour; the lower side of the neck and breast are of a purplish red, dashed with ash-colour. The upper part of its neck has a very regular and beautiful white circle, from which the bird has its name: and its whole neck, above and below this, is beautifully variegated with changes of colours, according as it is opposed to the light. The belly is of a dirty white, the greater quill-feathers are dusky, the rest ash-coloured; underneath the bastard wing is a white stroke, pointing downwards. It is the largest pigeon we have, and may be distinguished by its size. It hardly ever flies single, but in large flocks, and builds on trees: its food is ivy berries, and other vegetable matter. They begin to cooe in *March*, when they pair, and leave off at the approach of the winter season.

DOVE, TURTLE; this is a very beautiful little bird of the pigeon kind. The head, neck, and back, are of the bluish grey colour of the common pigeon, with a mixture of brown tinged with red at the bottom of the neck and near the rump. Its throat and breast are of a fine bright purple, its belly white, and the sides of its neck are variegated with a sort of ringlet of beautiful white feathers, with black bases. The tail is about three inches and a half long, having the two middlemost feathers of a dusky brown, and the others are black tipped with white; and the end and exterior side of the outmost feathers wholly white. Its food is hempseed and other vegetable matters. It is very shy, and chiefly breeds in thick woods.

DRABLING, IN ANGLING, is a method to catch barbels. Take a strong line of six yards, which, before you fasten it to your rod, must be put through a piece of lead, that if the fish bite, it may slip to and fro, and that the water may sometimes move it on the ground: bait it with a lob-worm well secured, and so by the motion the barbel will be enticed into the danger without suspicion. The best places are in running water near piles, or under wooden bridges, supported with oaks floated and slimy.

DRAG (in Angling) is a piece of iron with four hooks placed back to back, to which a line is fastened; useful to the angler, only to save an entangled line, or when it slips off his rod.

DRAUGHT HORSE. A horse destined for the cart, plough, *&c.* in the choice of which for either of these purposes, being that which they call the slow draught, one is to be chosen of an ordinary height: for horses in a cart, unequally sorted, never draw at ease, but the tall hangs upon the low horse. Our *English* authors say, he should be big, large bodied and strong limbed by nature, rather inclined to crave the whip, than to draw more than is needful; and for this purpose, mares are most profitable, if you have cheap keeping for them; for they will not only do the work but also bring yearly increase: but care must be taken to have them well forehanded, that is, to have a good head, neck, breast, and shoulders; but for the rest it is not so regardful, only let her body be large; for the more room a young foal has in its dam's belly the better: and be sure never to put the draught horses to the saddle, for that alters their pace, and hurts them in their labour. *See* PACK-HORSE.

Some say, that a horse designed for draught or labour, ought to have a head with large bones, and not fleshy, that so he may not be subject to diseased eyes; that his ears ought to be small, straight, and upright, and his nostrils should be large and open, that he may breathe with the more ease and freedom; that those horses that have their foreheads sunk a little downwards about the eyes, are generally good for labour: whereas those who are designed for the saddle, ought to have them even and pretty large; that the forehead

ſhould be always marked with a ſtar, unleſs the horſe be of a grey or white colour.

You muſt ſee that he has a bright and lively eye, full of fire, and pretty large and forward in his head, having large balls, and raiſed pits, and never ſunk, which ſhews that the horſe is old, or begot by an old ſtallion; and if he has a bold look it is alſo a good ſign: ſunk eyes or elevated brows are indeed ſigns of ſome malignity in a horſe; but theſe ſort of horſes will generally undergo much fatigue.

His mouth ſhould be pretty wide, being a quality very eſſential to it, the palate not fleſhy, and the lips thin: the mouth alſo ſhould be cool, and full of foam, by which you may diſcover the good temperament of a horſe, and that he is leſs ſubject to be heated than another; not that the mouth ſhould be that which muſt be moſt regarded in a draught horſe; for if he has a bad one he often draws well.

We do not require fine cheſts in draught-horſes, that not being eſſential; all that is to be ſaid on this occaſion is, that ſuch animals ought to have pretty thick and fleſhy ones, but his breaſt ſhould be large and open, his ſhoulders ſhould be thick, that he may draw the eaſier, and that his harneſs may not ſo ſoon hurt him: if he be ſomewhat heavy he is the better for draught; for the more he is nearer the ground, the more he is valued for that purpoſe. He ought to have double loins, which may be ſeen by their being a little raiſed up towards both ſides of the back-bone; he ought alſo to have large and round ſides, to the end that he may have the more guts, and a better flank: you need not be afraid of his having a great belly, provided it be not cow-bellied, which will make him appear deformed; he ſhould have full, but not broad flanks, that he may not ſway in the back at his labour.

That horſe is eſteemed which has a large and round buttock, that neither ſinks down or cuts: care ſhould be taken that he ſhould have a firm and ſtrong tail, that the dock ſhould be thick, well furniſhed with hair, and placed neither too high nor too low, both which contribute much to the deformity of the buttocks. The legs are parts of the body of a horſe which are moſt to be conſidered, as being thoſe which are to ſupport the burthen of the whole body, to which they ought to ſuit; therefore his legs ſhould be rather flat and broad than round, the roundneſs of the leg being a defect in a horſe deſtined to labour, which will ſoon ruin him; as for the hinder legs, the thighs ſhould be long and fleſhy, and the muſcle that is on the outſide of the thighs ſhould be fleſhy, large, and very thick: it is a fault to find them fall down plump when the horſe ſteps; it is alſo a ſign of weakneſs in the loins or hams: however you are not to conſider the hind legs ſo much as the others, they being not ſo ſubject to be faulty: the fore ones being very often bad when the others are good. Thoſe horſes whoſe legs are too long and too large for their height, are faulty, and you ought not to buy them. You muſt always obſerve that he ſtands well and plump, when he ſtops in any place, and if he does not, you may conclude he is not good.

The uſual way to know the age of a horſe, is by his teeth, eyes, *&c.* for which the Reader is referred to the article of AGE OF A HORSE, EYES OF A HORSE, *&c.*

The nether jaw of the horſe ſhould be examined very well, to ſee that it be incommoded with no gland, which may occaſion the ſtrangles, and be a means to kill him.

Something may be ſaid concerning the feeding of a draught-horſe; but for the ſervant who looks after him, he ought to be up very early, and ſee that the harneſs be in good order; and take away the old hay out of the rack, lay freſh in, and clean the manger, ridding it of all ordure, earth, or foul dung; and while the horſes are eating their hay, he ought to take them one after another out of the ſtable, to curry them; for if he ſhould do this work within, the duſt will fly to the other horſes.

If perſons would be perſuaded of the neceſſity there is to dreſs horſes well, they would not be ſo often ſurpriſed at the loſs of them, for want of this care, though they feed them ever ſo well.

It is from the filth that is upon and about them, that many of the diſtempers which befal them have their riſe, and prove their deſtruction: and it may be held for an invariable maxim, that a horſe with leſs food, methodically diſpenſed, and well dreſſed and curried, ſhall be fatter, and more ſightly, than another who has more provender given him, and whoſe dreſſing is neglected; and therefore the maſter of a family ought to be on the watch, and ſee that his ſervants (if they are of themſelves careleſs) be not wanting in this particular.

Such ſort of ſervants ought to be good humoured, handy, tractable, nervous, and hardy; and in order to dreſs a horſe well, they ſhould hold the curry-comb in the right hand, and the horſe in the left, near the buttock, and lightly move the comb backwards and forwards along his body, and continue ſo to do till no more filth or duſt come off; and then they muſt, with a duſt-cloth, wipe off all the duſt that lies on the horſe, taking care to do it over his body.

They ſhould daily, after they have duſted their horſes, take a whiſp of ſtraw, and twiſting the ſame hard, wet it in water, with which they ſhould rub them all over, more eſpecially the legs: by this means they will remove obſtructions, and facilitate the paſſage of the animal ſpirits, which cauſe motion: indeed it cannot be expected this ſecond dreſſing ſhould be practiſed every day, but it ought to be done as often as ſervants have any leiſure for it, particularly when the weather does not permit them to labour abroad; and if they are defective therein, the maſter of the family ought to be careful, and make them do it. When the horſes are thus dreſſed, the next thing is to take the comb, and gently to comb their manes and tails; and then they are to be led out of the ſtable to water, and to chear and divert them as much as poſſible.

Moſt part of the diſeaſes to which horſes are ſubject, proceed from their drinking bad waters; ſuch as thoſe that are too vivid, or too raw, muddy, and too cold.

To

To prevent these inconveniences, you must observe, that if you are near a river, you should in summer-time, by all means lead your horses thither; but as little as may be in the winter, if you have a well near home; for well-water fresh drawn, during the season, is warm, and consequently good for the horses: If you are remote from any river, and that in summer-time you have no other than spring water to give your horses to drink, you must draw the same a good while before it is given them, and expose it to the sun in tubs, or very clear stone troughs, that you may by that means correct the great crudity of the water, which is extremely injurious to them: you must seldom or never carry them to drink marshy water, which has very bad qualities, and will not agree with them.

When your labouring horses have drank their water, you must give them their oats in a manger, that has been first of all cleaned: the oats should be well sifted and cleared from dust, before you give 'em to them; you ought to take care to smell to them, and see if they smell of rats, or are musty, which will make the horses loath them. You must likewise, above all things, observe whether there are any small feathers among the oats, which may, if left therein, do the horse a great deal of injury: the quantity of oats allowed to each horse is sometimes more and sometimes less, but ever enough to keep up their flesh; and while the horses are eating their oats, the servants are to take their breakfasts, and afterwards to go to harness them for the plough or cart, as their occasion requires.

But before they do this, they must examine whether any thing hurts them, either at the breast, shoulders, or hams; and they must see that the collars about their necks be supplied with every thing that is requisite for them: if they are to draw in a cart, you must see that the pad upon the back does no way hurt them, that the same sits every way even, and that it be well stuffed with hair in the pannels, for fear it should be too hard upon the horse's back.

The horse being thus managed, and every thing in good order for the work, whether with plough or cart, those servants who do understand their business well, do not work them at first too hard, but every turn let them gently breathe; whereas if they do otherwise, they will very often find them decline their food, after their return from labour; by which ill management they sometimes run the danger of foundering, or having their grease melted; and therefore to work them gradually is the best and safest way. When the horses are returned from the plough, &c. as towards noon-tide, or the like, they are usually all in a sweat, and then the men must not fail to rub them with a whisp of straw; this is the first thing they are to do after they are brought into the stable; then let them prepare some bran which is very well moistened, which put before them in the manger, to make them mumble the same, and this will make them eat the hay with greater appetite; the bran being ordered as before, will cool their mouths, which are dried, through the heat occasioned within by their drawing; and notwithstanding the horses are thus hot, it is very rarely that any inconvenience happens to them, especially if the water wherein the bran has been steeped, be used rather hot than cold: when such precautions are not taken, it is no wonder the owner and their servants, very often find their horses loath their food, the dryness of their tongues rendering all the food insipid to them; and therefore those persons who love their horses, ought carefully to observe this method, and they will find their account in it.

We daily see persons who pretend to be well skilled in the management of horses, as soon after hard labour as they are brought back to the stable, never fail to rub their legs with whisps of straw, alledging that this is the way to refresh and supply them, and consequently to cherish them very much: but they are much mistaken in the point, for the horses after hard labour, must not have their humours much agitated; and by this action they must needs fall upon their legs, which will tend to make them very stiff and useless. The author adds, that he was willing to give them this information and caution, judging it very necessary for the avoiding those inconveniences which happen daily by that ill method, which cannot be followed after such admonition, but by those who are obstinate in their way, and will ruin their horses: not that our author disapproves the rubbing of their legs, which he says is very wholesome; but it must not be done when they are too hot; and they should confine themselves only to the rubbing of their bodies when they are in a sweat, and let their legs alone.

Their racks being well supplied with hay, you must suffer your horses to rest two hours, or thereabouts, then lead to the water, to a river, if near, or otherwise as above directed; and then in a little time after they have eaten their oats, to work again with them: in the evening, when your plowing or other work is over, the first thing to be done after they are tied to the rack, is to lift up their feet, and see if there is any defect in the shoes, and at the same time take out with a knife, the earth and gravel which is lodged in the foot between the shoe, and the sole, and put in some cow-dung: this your servants often neglect, and therefore the master ought to see them do it.

A thing very essential for the preservation of all sorts of horses, is good litter, which to these animals is comparatively the same as clean sheets to men. There are many who suffer the dung to rot a great while under their horses; some through lazinesS will not clean their stables, and others say they leave the dung there that it may receive more juice, and be the better manure for the ground; but it is very wrong reasoning, to say we do this to save five shillings, and lose ten: but you are to understand, that the dung being heaped up for a considerable time, does so overheat the horse's feet, that this alone is enough to ruin them entirely.

Hence also arise so many inconveniences to the owners of them, that they are often obliged to keep them in the stable without doing any work, which embarrasses either the master to whom they belong, or the servant who has the care to dress them; and this inconvenience proceeds only from their ignorance of the cause: and therefore it is of the highest importance

that the ſtable ſhould be cleanſed as often as poſſible, and the horſes have freſh litter given them; beſides, it is natural to believe, that all animals hate their own ordure; and it is abſurd to think, that a horſe, which is one of the cleaneſt among them, ſhould not do the ſame.

Freſh litter has a virtue to make horſes ſtale as ſoon as they come into the ſtable, whereas when they find no ſuch thing therein, they decline ſtaling; and if people were ſenſible what refreſhment it is to a horſe to ſtale at his return from labour, they would be both more curious and careful to let him have that which would promote it than they are.

This ſtaling after much fatigue, will prevent obſtructions in the neck of the bladder, or paſſage of the urine: but if otherwiſe, and that this ſame urine comes to lodge in the bladder, it will cauſe ſome inflammations there; which are very dangerous evils for horſes, and of which they very often die, without preſent relief: hence you may judge of the neceſſity there is to let your horſes frequently have freſh litter.

As to the remaining care you ought to have of your horſes, ſo that they may paſs the night as they ought, there needs no more after you have well rubbed them, than to ſupply their racks with hay enough, which they may feed upon after they have eaten their oats: and continuing thus daily to manage them, it will be the means to keep them in a condition to do you good ſervice. If you would ſee more about buying other ſorts of horſes, *ſee* RULES FOR BUYING HORSES.

DRAW-GEAR, denotes a kind of harneſs for draught-horſes.

DRAW-NET. A device wherewith to catch birds, and eſpecially woodcocks; the figure of which will be found under that article; to which ſomething to be ſaid here does refer. There are two ways, ſays a *French* author, to defend the cords or lines of your draw-net from your hands, and to keep you from cold. Suppoſe the crotchet or hook R, in the ſaid figure, Number 2, ſhould be denoted here by the figure 1; the ends of the two cords 2 and 3, and the two lines 5 and 6, were the cords to keep the net extended; when you ſit in your lodge, hold the place marked 7, very firm in one hand, and with the other paſs the two redoubled cords together, to the figure 4, between your legs, and bring them over your thigh; then keep them tight enough, quit the places, and ſo with either of your hands you will hold the cords without trouble; but you muſt be very ready in opening them, and ſeparate your knees when the woodcock gets into the net. *See* Plate V. No. 1.

Another way of holding the net without feeling any cold, or hurting your hands, is ſeen in the figure, No. 2.

Suppoſe the ſeat in the lodge be towards the letter R, drive the ſtick H into the ground; it muſt be about two inches thick, and the breadth of four fingers above ground: at a foot and a half from this little ſtake, as you go towards the draw-net, at the places marked K and M, drive two other ſticks into the ground, and they muſt not exceed a foot above ground; a hole ſhould be bored in them within two inches of the upper end, into which you may thruſt a finger: take a turned piece of wood, N, C, O, whoſe ends N, O, muſt be no thicker than one's little finger, that they may the more eaſily turn into the two holes I and L, into which you muſt thruſt them: you muſt make a hole in the middle of the ſaid round piece of wood, big enough to receive a peg as thick as your finger, and five or ſix inches long. This piece of wood ought to be fixed in the holes before you drive the two ſtakes into the ground.

Beſides this, take another piece of wood, H, G, F, let it be flat like a piece of pipe-ſtave, and cut at both ends in the form of a half-moon, that ſo being joined to the ſtake H, it may hold. The machine being thus made, when you have ſpread and mounted your net, ſuppoſe the two lines A, B, were its cords, raiſe them both with the ſame hand, and doubling them with the other at the letter C, give them a turn about the end C, of the peg in the middle; then puſhing the other end E, on the ſide of the net, give the turned ſtick, or round piece of wood, N, O, two turns, and faſten it, by putting ſome of the ends of the marcher H, againſt the ſtick H, and the other at F, againſt the end of the peg E, ſo that the weight of the draw-net, by this marcher or trap, will ſtop the turned ſtick, and hinder its turning. You may by this device keep your hands in your pockets, without being afraid of the net's falling; but keep the end of your foot always upon the middle part G, and when the bird comes to your draw-net, ſtir your foot, and the net will as readily fall as if you held it with your hands.

This triple draw-net ſerves chiefly for paſſes made about foreſts; they are very convenient, becauſe one man can pitch ſeveral of them, without being obliged to watch the coming of woodcocks. *See the form of this net in* Plate V. Fig. 3.

In order to the making this net, you muſt take meaſure of the breadth and height of the place where you are to uſe it, and faſten it to a nail, in order to meaſure off the ſquare meſhes; as you will find under the Article NET, and NET-MAKING, where we treat of making a net that will ſhut like a bag, which muſt conſiſt of good thick thread, twiſted four-fold, and the meſhes muſt be ten or a dozen inches broad.

It is difficult, in great foreſts, and woods that are equally ſtrong and tall, to make glades, without felling a great many trees; and yet you are not ſure your draw-net will do, without you meet with a place of ten or a dozen arpents of more, each of which conſiſts of an hundred perches ſquare, without any trees, and that the glade adjoins to it.

In caſe you can have no ſuch, you may try the following invention, deſcribed in Plate V. Fig. 4.

Pitch upon ſome clear place on the ſide of a foreſt; for example, ſuppoſe A D to be the foreſt, and the ſpace between the tree A and the letter E, to be the void ſpace, five or ſix fathoms broad; pitch upon a tall and ſtraight tree on the ſide of the wood, as that marked A, lop off the branches towards your clear ground, and faſten to the top of the tree a ſtrong pole, as K, R, Z; find out a tree in the wood of a middling bigneſs, as that repreſented by E, F, let it be as high and ſtraight as poſſible: when you have taken off all the branches,

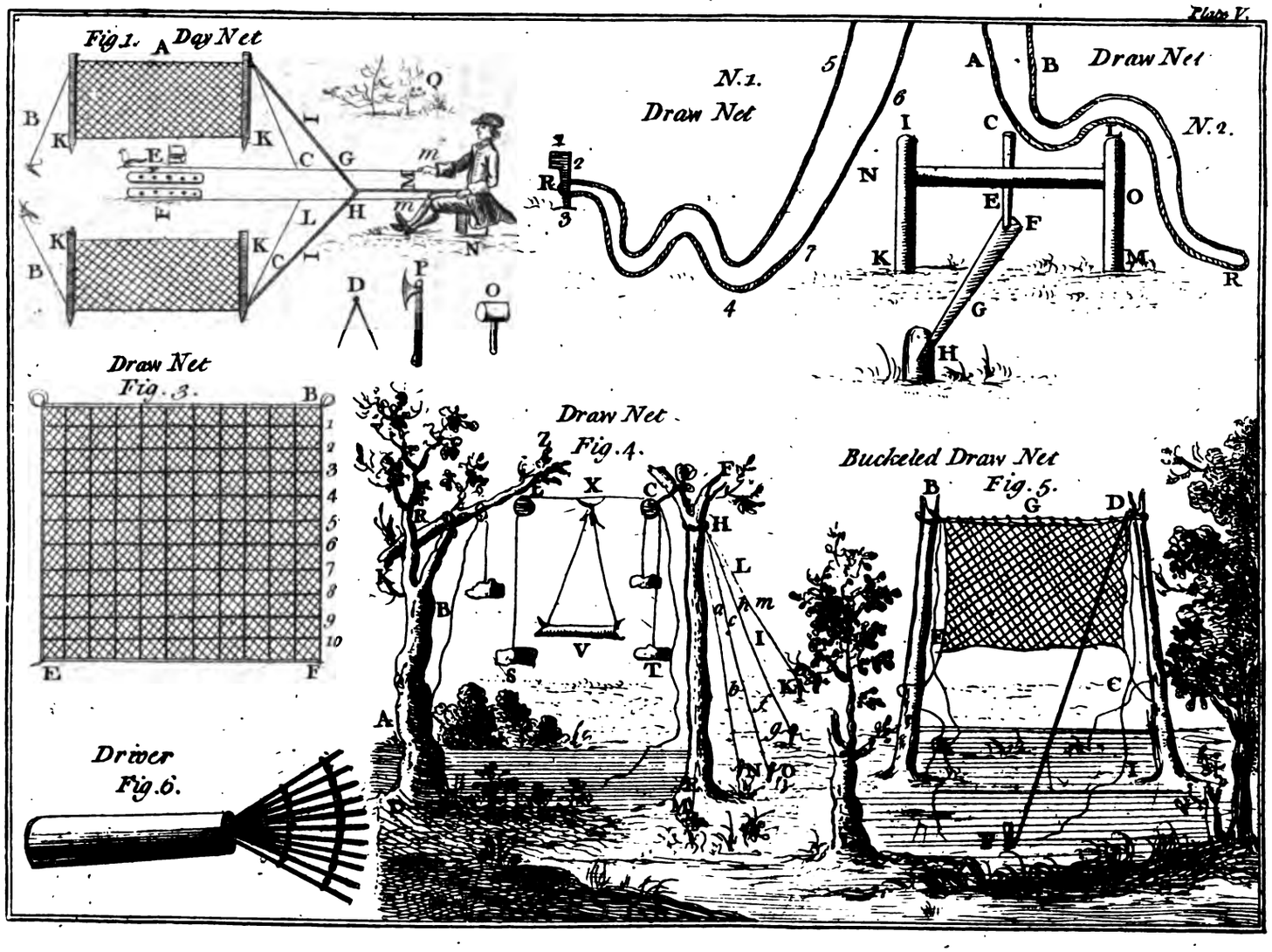


Fig. 1. Day Net
N. 1. Draw Net
Draw Net
N. 2.
Draw Net
Fig. 3.
Draw Net
Fig. 4.
Buckeled Draw Net
Fig. 5.
Driver
Fig. 6.

branches, carry it to the place where your draw-net is, and making a hole in the ground, as at E, four or five feet deep, and fix or seven fathom distant from the edge of the forest A, put the thick end of it into this hole, lift it up, and let it stand upright, after you have first tied within two or three feet of the end F, some bands of wood, fastened end to end to one another, as you may see by the letters *a*, *b*, *c*, *d*, *e*, *f*, &c. and then let them be kept tight, with wooden hooks fixed quite round in the ground: they should be nine feet distant from the foot E, and ordered like ropes at the mast of a ship: at the same time care must be taken that none of them reach to the glade, or space between A and E, for fear of entangling the net. You must so set your tree which you have cut, that the point F incline two feet, or thereabouts, towards the pass to the forest; and you are to fasten the pully C to the small end, with a cord or packthread thrust through it; as also to the tree A, and through the pully L. You may leave the thick cords there; but because thieves might be tempted to steal them, the best way is to leave only the packthreads, and even to shorten them, by tying a small packthread B to one end, and twisting the other about the trunk of the tree, at a place where they are not to be come at, especially with climbing up as far as the part H of the cut tree: but the best way is to take with you a light ladder, six or eight feet high, by which you may more easily secure your goods.

Another invention is, after the flight is over, to tack two cords together, by the means of which you may convey up as many stones as far as the pullies; then take a stick V, two feet long, and cleft at both ends, about which fold all the rest of the cords; after which pass them both into the clefts at the ends of the stick, and let the whole mount up. Thus the stones S, T, will come down to half the height of the trees, because the cords are tied together at the letter X, and there will the stick V hang downwards: so that to order things rightly, you must have a long pole with a hook at the end, wherewith to hook the piece of wood V, and pull it; or else take a packthread, and tie a stone as big as a hen's egg to it, that you may throw it between the two cords over the stick V, and by that means to pull it as with a hook. It remains only to observe, that you may place several draw-nets round about the forest, and even one man can pitch ten or a dozen of the triple ones.

This article might be thought to remain imperfect, without something should be said relating to the flying, or buckled draw-net, by some called pantine; which is of use in all places, and especially in countries where it is nothing but coppices and forests, whose owners will not allow the felling any trees, or cutting of branches, necessary for the use of the former net. *See* Plate V. Fig. 5.

Take two poles, as E, B, D, C, as thick as your arms, of twenty-one feet long; they must be straight and light, and pointed at the thick end: fasten to each small end B, D, an iron, copper, or such like buckle, to serve instead of a pully: you must also have a draw-net with buckles, into which you must pass a strong packthread, that is even, and twelve fathoms long: this packthread is denoted by the letters B, G, D, F; you must fold it, that it may not be entangled with the net: you must in like manner have a wooden hook F, of a foot long, for the convenience of carrying your implements, to use as you have occasion.

It is to be observed, that this draw-net must be pitched no where but on the sides of a coppice, near some vineyard, in the highways or walks in a forest or park; especially when these places adjoin to fields, or open grounds, in the middle or between woods. You may likewise spread this net along a brook, at the bottom of a pond, and indeed, in a manner, in all places frequented by woodcocks. You must use it in the following manner:

Suppose the tree L, should be the side of the wood, or some other place where you have a mind to pitch your net, you must unfold it, and take an end of the thick packthread which passes through the buckle, and tie it to the end of the pole at the letter B; pass a small packthread E, K, into the buckle which is at the end B, and tie it to the first buckle B of the net, that you may draw it like a bed-curtain; then stick the pole B, E, quite round the wood L, in such a manner, that it may stand firm in the ground, and slope a little towards the tree. Take the other end of the thick packthread F, and pass it also into the buckle or ring D, which you are likewise to pitch into the ground, about five or six fathom distant from the wood, or other pole B, E: then withdraw seven or eight fathoms distant from the net, to the foot of some tree or bush, or else to some branch which you have pitched on purpose, over against the net, as at the place marked F; here you must fix the hook, and tie the end of the thick packthread, and then pull the whole till the net is mounted; you must next twist the cord twice or thrice about the hook, to the end that you may keep it tight, while you go to pull the small packthread E, in order to extend the net; when this is done return to the hook, unfold the cord, and sit near the bush or cover, without stirring, having your eye always to the net, that you may let it fall when the woodcock gets into it, which you must kill as soon as taken; and setting your net readily again, do as before. It would not be amiss to put a small packthread into the last buckle D of the net, as on the other side, by which you will readily adjust the draw-net.

These sort of draw-nets should have no other than lozenge meshes, because they must glide along the cords, like a bed-curtain; the net should not be above five or six fathom wide, and two and a half or three in height. The meshes should be two inches broad, or two and a half or three at most; the net should be made of fine but strong thread, and the copper buckles fastened to all the meshes of the last upper row B, D; the leaver must be made twice as long as you would have the net to be in extent; then having a quarter more than the measure of the height you must accommodate the buckles, which being adjusted in the manner wherein they ought to stand, pass a middling cord, or else a packthread as thick as a writing-pen, into all these buckles.

You should have two other small packthreads B, G, D, C,

D, C, which you must pass into the last range of the meshes of both sides, one of which must be fastened to the buckle B, and the other to that at D, in order to keep the net right when you make use of it; and therefore the two ends E and G must be loose, and longer than the height of the net by ten or twelve feet: this net must be of a brown colour.

The draw-nets are usually made with lozenge meshes, because there are few persons who know how to make them otherwise, but others advise to make them as much as you can of square meshes; for when they are thus wrought and pitched in the passes, they are scarce to be seen, and when entangled will contract the nets too much in some places, and darken the place, which frightens the woodcock, and will either make him go back or pass it over.

You are to observe concerning draw-nets with lozenge meshes, that more thread and labour is required, than for those with four-square ones, which are made sooner, and have no superfluous meshes. However, every one is at liberty in their choice either of one or the other.

If you would have a draw-net with lozenge meshes, measure the breadth of the place where you are to spread it, make the net near twice as long as that measure. It's height should be from that branch where the pulley is, to within two feet of the ground; and that you may comprehend it the better, consult the first figure under the article WOODCOCK. The breadth is from the letter V to the letter X; being the places where the stones should fall, which are supposed to be fastened at M and N; when the net is spread, the height should be taken from the pulley to come down near to the letter X; the net must therefore be made one third part longer than the height; for being extended in breadth, it will shorten one-third; when the whole net is meshed, you must have a cord that is not quite so thick as your little finger, through all the meshes of the last range M, N; you must fasten both sides, tying the six first meshes of the row together to the cords so that they may slip along; do the same by the other side: these two places must be distanced, according to the width of the pass, leaving the rest of the meshes of the net above loose, so as to slip or be drawn from one side to the other, like a bed-curtain: then to each of these cords tie a packthread, which you must pass into the last range of meshes on the sides, that so you may fasten the net as it should be, to two trees, A, B; a foot or two of the cord should be suffered to hang down at each end of the net, wherewith to tie the stones, when you would spread the net.

If you would have a draw-net with square meshes, take the breadth and height, and work as aforesaid: when the net is finished, verge it above with a pretty strong cord, and pass two packthreads through the meshes, on both sides, in the same manner as in that made lozenge-wise, and leave also both ends of the cord, so that the stones may be tied therewith.

DRAWING (with Hunters) is beating the bushes after a fox; drawing amiss, is a term used when the hounds or beagles hit the scent of their chase contrary, so as to hit up the wind, whereas they should have done it down; in that case it is said, they draw amiss.

DRAWING ON THE SLOT, is when the hounds touch the scent and draw on till they hit on the same scent.

DRAWING A CAST, (among Bowlers) is winning the end, without stirring the bowl, or block.

DRAY. The form for squirrels nests built on the tops of trees.

DRENCH: is a sort of decoction prepared for a sick horse, and composed of several drugs mentioned in Mr. SOLLYSEL's *Complete Horseman*.

They put the drench upon the end of a bull's pizzle, and thrust it down his throat, in order to recover his appetite and strength.

DRIFT OF THE FOREST, is an exact view and examination taken at certain times, as occasion shall serve, to know what beasts are there; that none common there, but such as have right; and that the forest be not overcharged with foreigners beasts or cattle.

DRINKING OF HORSES, immediately after hard riding, *&c.* is very dangerous; and therefore they should not be suffered to do it, till they be thoroughly cooled, and have eat some oats; for many by drinking too soon have died upon it, or become sick.

A horse after violent labour, will never be the worse by being kept half a day from water; but may die by drinking an hour too soon.

DRIVERS. A machine for driving pheasant powts, consisting of good strong ozier wands, such as basket-makers use; these are to be set in a handle and twisted, or bound with small oziers in two or three places. *See* Plate V. Fig. 6.

DRIVING OF PHEASANT-POWTS; for the driving and taking of powts or young pheasants in nets; when you have found out an eye of pheasants, place your net across the little paths or ways they have made, which are much like sheep tracks, possibly you shall find out one of their principal haunts, which may be done by the bareness of the ground, their mutings and the feathers that lie scattered about.

To do this you should always take the wind with you, it being customary for them to run down the wind; and place your nets hollow, loose and circularly, the nether part of which must be fastened to the ground, and the upper side lying hollow, loose and bending, so that when any birds rush in, it may fall and entangle them.

Having fixed your net go to the haunts, and if you find them scattered, call them together with your call: and when you find them begin to cluck and pipe one to another, then forbear calling, and take an instrument, by some called a driver, made of good strong white wands or oziers, such as are used by basket-makers, which is to be set in a handle, and in two or three places twisted or bound with some oziers, according to the figure, see Plate V. With this driver, as soon as you perceive the pheasants gathered together, make a gentle noise on the boughs and bushes about you, which will so fright them that they will get close together, and run away a little distance, and then stand; after this

this make the same noise a second time, and this will set them a running again; taking the same course till you have driven them into your nets; for they may be driven like so many sheep.

If they happen to take a contrary way; then make a raking noise, as if it were in their faces; and this noise will presently turn them the right way.

But in using the driver observe,

1. Secrecy, in keeping yourself from their sight; for if they espy you they will run and hide themselves in holes under shrubs, and will not stir till night.

2. You must have regard to due time and leisure, for rashness and over haste spoil the sport.

DRIVING OF WILD FOWL, is only practicable in the moulting time, which is in *July* and *August*; and it is to be done by means of a spaniel, well trained to the purpose. The nets are to be set in creeks and narrow places, or at their usual night retreats, and the dog is to put them up, and driving them forward, they will be sent immediately into the nets, not being able to fly away from the dog, for the want of their wing feathers. The people who live in the fens find great account in this practice, taking very great numbers by it. They are usually indeed poor and out of flesh at this time, but as they are always taken alive, and without any hurt, the people find it very easy to fatten them with beasts livers, barley, paste, scalded bran, and the like; and they will on this become, in a very little time, fat and well tasted, excelling in flavour both the tame ducks commonly kept in the yards, and the wild ducks in their natural state. When the sportsman takes the dog into places where they are not so frequent, he may hunt them singly, and the dog alone will take them.

DROMEUS, a word used by the ancients, as the name of the stag. The meaning of the word is 'swift in running;' and the stag had this name as being swifter than any other animal.

DROPPING, or DRIPPING, a term used among *falconers*, when a hawk mutes directly downwards, in several drops, not throwing out her dung straight forwards.

DROPSY, IN GOATS; this disorder occurs but seldom, yet is very troublesome whenever it happens, by their feeding and lying in bogs, wet valleys, or moorish grounds.

When this appears by water between the skin and flesh, squeeze it up with your hand, and make a slit, so press out as much as you can; then put a linen tent in the hole, dipt in oil of bays or spike, which you can most conveniently get, and so renew it every other day, that it may attract and evacuate the water and humour; then dry the leaves of draw of elder powder, and give it in vinegar warm. Let the goat in the mean while feed on dry meat, but very little water, and that warm.

DROPSY, IN HORSES; the signs of this disorder, according to Dr. BOERHAAVE, are a loose soft tumour of the whole body, really cold and watery, in the legs especially, a desire of drinking, the urine thin and white, &c.

It proceeds from a kind of weakness in the blood, and the ways to cure it, or rather the signs of cure, are only two, viz. a discharge of the water, and recovery of the strength of the blood. Give the following Hellebore Infusion:—

Take of black hellebore fresh gathered two pounds; wash, bruise, and boil it in six quarts of spring or new river water, till it is reduced to four quarts; then strain out the liquor, and put two quarts of white wine to the remaining hellebore, and let it infuse warm in a pitcher, or the like, for forty-eight hours, often shaking the liquor about, then strain out the wine, and mix both the water and it together, which may be kept in a stone bottle, and a pint of it milk-warm given every morning and evening.

Many horses have been tapped for the dropsy with great success, for the situation in which a horse stands very much favours the distillation of the water through the orifice; but, if this method is not approved, I would advise the following purge:—

Take one ounce of aloes, one drachm of gamboge, two drachms of powdered saffron, cloves and nutmegs each one drachm, oil of anniseed sixty drops, with a sufficient quantity of buckthorn to make it into a ball.

Whilst your horse is under hand for cure, you should observe that his food is of the best and most nourishing kind, and that he drinks as sparingly as possible.

As the horse advances towards recovery, you may give him this strengthening drink:—

Take gentian root and zedoary, of each four ounces; chamomile flowers and the tops of centaury, of each two handfuls; jesuit's bark, powdered, two ounces; juniper berries, four ounces; filings of iron, half a pound: infuse these in two gallons of ale for a week, now and then shaking the vessel; give him a pint every morning and night, and let him fast two hours after it.

Others adopt this method of cure:—

Take two handfuls of parsley seeds, the like of anniseeds and bay-berries, with one handful of juniper-berries; bruise them together in a mortar, and boiling them in verjuice, sweetened with brown sugar, give the horse the quantity of a pint to drink, first and last, chafing the swelled or tumorous places with your hand, or a hard wisp of hay; and so continuing them for a week together, you will find the flesh become firm, and the watery humours disperse.

DROUGHT, extreme, in Swine; it usually happens in hot weather, from whence, by their excess of drinking, many distempers proceed.

When you perceive your swine greedy or drinking immoderately, boil woodsorrel and housleek in the water you give them; peg their ears, and put a tent of root of sweetwort into the holes, and so the heat of the liver will be cooled, and the violent thirst cease.

DRY. To put a horse to dry meat is to feed him with corn and hay after taking him from grass; or housing him.

DUBBING OF A COCK, (with Cock Masters) a term used to signify the cutting of a cock's comb and wattles.

DUBBING, (among Anglers) is the making artificial flies, the materials for making which are spaniels hair,

hair, hogs hair dyed of different colours; squirrels, sheeps, bears and camels hair, ostrich, peacock, and turkey wing feathers, &c. *See* FISH.

DUCKS are amphibious birds, that live on land and water, of which the male is called a drake: there are two sorts of them, *viz.* the wild and the tame; the tame duck is fed in the court-yard, walks slowly, delights in water, swims swiftly, but scarce ever rises from the ground to fly. *For* TAME DUCKS *see the Article* POULTRY.

As for wild ducks, those who are disposed to employ part of their time in taking them with nets, &c. should ever have some wild ones made tame for that purpose; for the wild never associate themselves with those that are of the real tame breed: therefore be always provided with seven or eight ducks, and as many drakes, for fear of wanting upon any occasion; because they are often lost, and much subject to miscarry.

The nets must never be placed but where you have a foot of water at least, nor much more; so that marshes, sands, flats, over-flown meadows, and the like, are the most proper places for this sport.

The nets used are the same with those for plovers, and they are set after the same manner, only these are under water, and you need no border to conceal the net. The figure, Plate VI. will shew you the net spread; your main sticks should be of iron, and strong in proportion to their length.

But if the main stick be of wood, fasten good heavy pieces of lead along the cord at about a foot distance on the sides of the net to sink it down into the water, that the ducks may not escape by diving: these pieces of lead are represented in the cut along the cord Q, S. *See* Plate VI. Fig. 1.

Several small wooden hooks are likewise fixed all along the verge of the net A, B, C, D, opposite to the person that holds the cord to keep it tight, or else they also place some lead there, to hinder the birds from rising that are caught.

The hooked stake X, and the pulley V, ought to be concealed under the water, that the ducks may not see them. The lodge should be made of boughs, as under the word plover, which the reader may consult. Upon the brink of the water, when all is ready, take the ducks and drakes, and place the first in this manner: tie some of them before your net, and as many behind at Y, by the legs, but so that they may swim up and down, eating such grain or chippings as you shall throw to them for that purpose. Keep the drakes by you in your lodge; when you perceive a flock of wild ducks come near you, let fly one of the decoy drakes, which will presently join the wild ones, in expectation of his mate; and not finding her there, he will begin to call; which being heard by the female tied by the legs, she will begin to cry out, and provoke the others to do the same: upon which the drake flies to his mate, and generally draws the whole flock with him, which greedily fall to eat the bait laid for them. Now the ducks being once come within your draught, pull your cords with the quickest motion you can; and having thus taken them, let go your decoy-duck, and feed them well; you may kill the wild ones, and so set your nets again as you see occasion.

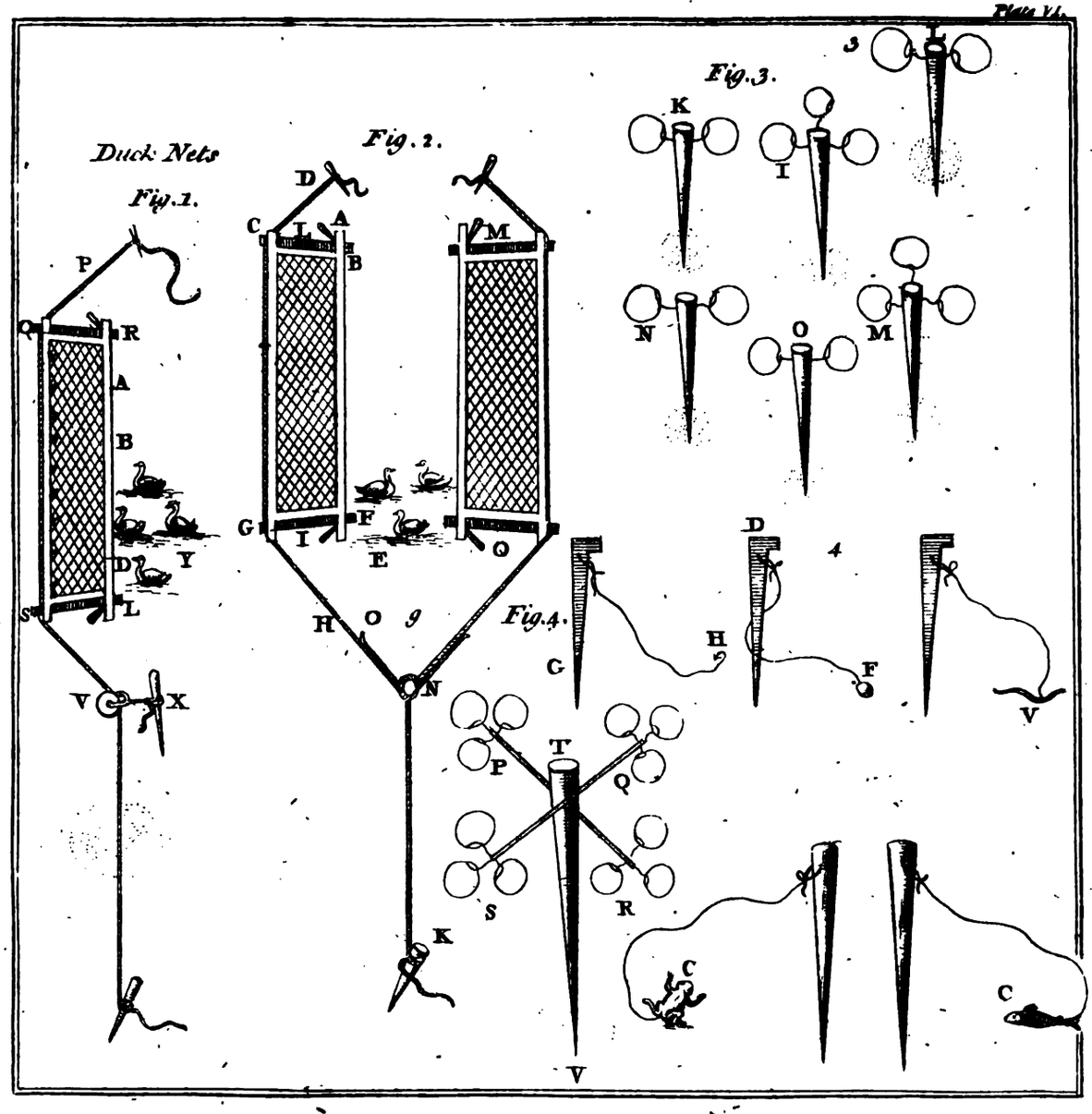
The wind happens sometimes so contrary, that the drake cannot hear his mate when she cries; in which case you must let go a second and a third to bring in the flock you design to surprize; and your decoy-ducks should have some mark of distinction, for the more readily knowing them from the wild ones, as the sewing something about their legs, or the like: when the water is troubled, and it has rained a little, or that the weather is misty, it is the best time to take ducks with nets.

A second way of taking ducks with nets is by two nets, which must be set in a place where there is at least half a foot water, that they may be concealed; and therefore those who catch ducks in the water should always be booted. *See* Plate VI. Fig. 2. The staves or sticks B, C, E, D, ought to be made of iron, seven feet or seven feet and a half long, and proportionably thick: the pickets, or sticks A, F, should be made strong and half a foot long; the others, D, H, should be of the same strength, each having a cord D, C, three fathom long: the staves of the net M, O, should be longer than the others by three inches, or half a foot; the ledge K, should be sixteen or eighteen fathom distant from the nets; the knot N of the cord, where two other cords are made fast, as N, G, N, O, should be five or six toises distant from the first staves; and forasmuch as all these cords of the nets should be fastened with all your force, sticks or pieces of wood half a foot long should be fixed slopingly in the ground, on the side of the letters I, L, M, O, to keep the iron staves down in the water, from whence they bring them out by drawing the cord K, N.

Manage your decoy-ducks and drakes as before; there is no need that the wild ducks should swim on the water before you draw your nets, for you take them at the same time they alight upon it.

A third way of catching wild ducks, is with bird-lime; of which take three or four pounds of that which is old and rotted; to each pound put two handfuls of charcoal, burnt straw, and as much nut oil as the shell of a hazel-nut can contain; mix and work the whole together for a quarter of an hour, and anoint one or more cords therewith, each of them being ten or twelve fathom long; and conveying them to the place where wild ducks frequent, get a boat, if you do not care to go into the water, and set the cords among the rushes or other herbage, whither the ducks retire: pitch the two staves in such a manner that the ends may be even with the water, and tie a very stiff cord to them, which must be borne up on the water with some bundles of dry rushes; when the ducks are got among the herbs and rushes, they will at length come to the cord, which will embarrass them, at which time they will endeavour to take wing; but not being able to do so, they will drown themselves in endeavouring to get loose.

A fourth way of taking wild ducks in the water, is with nooses or springs made of horse hair, otherwise called running slips and horse-hair collars, a cheap and easy


Duck Nets
Fig. 1.
Fig. 2.
Fig. 3.
Fig. 4.
P
R
A
B
Y
D
L
S
V
X
C
L
A
B
G
I
F
E
H
O
9
N
K
M
O
3
K
I
N
O
M
4
D
G
H
F
V
T
P
Q
S
R
C
V
C

easy way, especially in such low marshes as are overflown not above a foot and a half deep; observe their most frequented haunts, and there throw a little corn for two or three days, to embolden and draw them on: for having once fed there, they will not fail to return thither every day.

You must then plant seven or eight dozen of your running slips of small wire or horse-hair collars, tied two or three together, as in Plate VI. Fig. 3, to little sharp pointed stakes, shewn by the letters I, K, L, M, N, O; they must be fixed so far into the ground, that the upper ends of them and the collars may be just hid a little under the water; and then throw some barley, or the like grain, among them, that so you may catch them either by the neck or legs: you must resort thither twice or thrice every day to see how you succeed.

The collars may in like manner be placed as in the second figure following: Take a sharp pointed stake about two feet long, in proportion to the depth of the water, as T, V, bore two holes through the thick end T, into which put two sticks, as P, R, and Q, S, each of them should be about the thickness of one's little finger, and two feet long; they must be firmly set in and well pegged; fasten your collars or slipping knots to the end of your stick, as the letters P, Q, R, S, denote: this done, and having fixed your stake T, V, in the ground so far that it may all be under water, so as that your knots may just swim open on the top of it: then cast your grain or chippings of bread in and out among the said stakes, the better to entice the ducks to come: you may make use of several of these stakes, and place them seven or eight feet asunder.

There is a fifth way of catching wild ducks, and that is with hooks and line, as appears by Fig. 4.

Fasten your lines well and firmly to sharp pointed sticks, as shewn by the figure marked G, and stake down the sticks into the ground, then bait your hook H with an acorn or bean F, or with a fish or frog, as at C: you may also bait with a worm, as at V, by these you may learn to bait with pastes, or the like; and you would do well to feed the ducks two or three days before, at the place where you intend to set your lines and hooks, the better to draw them on, and embolden them; and you should also visit your spot every morning and evening, to take up what you have caught, and to rectify what may be amiss.

Some of our *English* authors having set down a method how we shall preserve wild ducks, say we must wall in a little piece of ground, wherein there is some small pond or spring, covering the top of it all over with a strong net; the pond must be set with many tufts of oziers, and have many secret holes and creeks; which will inure them to feed there, though confined.

The wild duck, when she lays, will steal from the drake, and hide her nest, or else he will suck her eggs. After she has hatched, she is very careful to breed her young, and needs no attendance more than meat, which should be given twice a day, as scalded bran, oats, or fitches. The house hen will hatch wild duck eggs as well as tame, and the meat will be much better; yet every time the ducklings go into the water, they are in danger of the kites, because the hen cannot guard them. Teals, widgeons, shell drakes, or green plovers, may be ordered also in the same manner as wild ducks.

DUCKER, } A kind of cock that in fighting will
DOUCKER, } run about the clod, almost at every stroke he gives.

DULL; the marks of a dull, stupid horse, are white spots round the eye and on the tip of the nose upon any general colour whatsoever: these marks are hard to be distinguished in a white horse; though the vulgar take the spots for sign of stupidity, it is certain they are great signs of the goodness of a horse, and the horses that have them are very sensible and quick upon the spur.

DUN. *See* COLOURS OF A HORSE.

DUN-HOUND: these dogs are good for all chases, and therefore of general use.

The best coloured are such as are dun on the back, having their fore-quarters tann'd, or of the complexion of a hare's legs: but if the hair on the back be black and their legs freckled with red and black, they then usually prove excellent hounds, and indeed there are few of a dun colour to be found bad: and the worst of them are such whose legs are of a whitish colour.

It is wonderful in these creatures, to observe how much they stick upon the knowledge of their master, especially his voice and horn, and no one's else: nay more than that, they know the distant voices of their fellow, and do know who are babblers and liars, and who not; and will follow the one and not the other.

Now for hounds; the west country, *Cheshire*, and *Lancashire*, with other wood-land and mountain countries, breed our slow hounds, which is a large dog, tall and heavy.

Worcestershire, *Bedfordshire*, and many well mixt soils, where champagne and covert are of equal largeness, produce a middle sized dog, of a more nimble composure than the former.

Lastly, the north parts, as *Yorkshire*, *Cumberland*, *Northumberland*, and many other plain champagne countries, breed the light, nimble, swift, slender, fleet hound.

After all these, the little beagle is attributed to our country: the same that is called the gaze hound: besides the mastiff, which seems to be a native of *England*, we also train up most excellent greyhounds (which seem to have been brought hither by the *Gauls*) in our open champagnes.

All these dogs have deserved to be famous in adjacent and remote countries, whither they are sent for great rarities, and ambitiously sought for by their lords and princes; although only the fighting dogs seem to have been known to the ancient authors; and perhaps in that age hunting was not so much cultivated by our own countrymen.

DUNG OF A HORSE, should be observed upon a journey; if it be too thin, it is a sign that either his water was too cold and piercing, or that he drank too greedily of it; if there be among his ordure whole grains of oats, either he has not chewed them well, or his stomach is weak; and if his dung be black, dry,

or come away in very small and hard pieces, it is a sign that he is over heated in his body.

Viscous or slimy dung, voided by a race-horse, shews that he is not duly prepared; in which case his garlic balls and exercise are to be continued till his ordure come from him pretty dry, and without moisture.

DUNG-WORMS, are a kind of fly-worms, of a short and somewhat flat body, found in great abundance among cow-dung in the months of *September* and *October*. These have all their metamorphoses into the fly-state performed within a shell of their own skin. They are excellent baits for angling.

DUST AND SAND will sometimes so dry the tongues and mouths of horses, that they lose their appetite.

In such case give them bran well moistened with water, to cool and refresh their mouths and tongues, or moisten their mouths with a wet sponge to oblige them to eat.

DUST: to beat the dust. *See* BEAT.

EARS OF AN HORSE, should be small, narrow, straight, and the whole substance of them thin and delicate: they ought to be placed on the very top of the head, and their points, when stiled, or pricked up, should be nearer than their roots.

When a horse carries his ears pointed forwards, he is said to have a bold, hardy, or brisk ear; also when a horse is travelling, he should keep them firm, and not (like a hog) mark every step by motion of his ear.

To cure a pain in a horse's ears, first cleanse them well, for fear the horse should run mad, and then put in some honey, salt-petre, and very clean water; mix the whole together, and dipping a linen cloth therein to attract the moisture, continue the application till the cure is effected.

To take out any thing incommodious in a horse's ear, put in an equal quantity of old oil and nitre, and thrust in a little wool: if some little animal has got in, you must thrust in a tent fastened to the end of a stick, and steeped in glutinous rosin; turn it in the ear, that it may stick to it.

If it be any thing else you must open the ear with an instrument, and draw it out with an iron; or you may squirt in some water; and if it be a wound, you must drop in proper medicines to cure it.

To EARTH, is to go under ground, to run into a lurking hole, as a badger or a fox does.

EARTH-WORMS, or reptiles which serve both for food for birds, and baits for fish: and as it is sometimes difficult to find them, the following methods are set down, by which you may have them almost in all seasons of the year.

The first, is to go into a meadow, or some other place, full of herbs or grass, where you suppose there may be such sorts of worms, and there to dance, or rather trample with your feet for about half a quarter of an hour, without ceasing, and you will see the worms come out of the earth about you, which you may gather, not as they are creeping out, but after they are come quite out; for if you should cease trampling for never so short a time, they would go in again.

Another time to get worms, is when there are green walnuts upon the trees; take a quarter, or half a pound of them, and put into the quantity of a pail of water, rubbing the husks of the nuts upon a brick, or square tile, holding them in the bottom of the water: continue to do this till the water is become bitter, and of a taste that the worms will not like: scatter this water upon the place where you judge worms to be, and they will come out of the ground in a quarter of an hour. *See* WORMS.

EBRILLADE, is a check of the bridle which the horsemen give to the horse by a jerk of one rein, when he refuses to turn.

An ebrillade differs from a saccade in this, that a saccade is a jerk made with both reins at once.

Most people confound these two words, under the general name of a check or jerk of the bridle; but let it be as it will, it is always a chastisement, and no aid, and the use of it is banished the academies.

ECAVESSADE, is a jerk of the cavesson.

ECHAPE: an echape is a horse got between a stallion and a mare of a different breed and different countries.

ECHAPER, to suffer a horse to escape, or slip upon the hand; a gallicism used in the academies, implying to give head, or put on at full speed.

ECOUTE; a pace or motion of a horse. He is said to be ecoute, or listening, when he rides well upon the hand and heels, compactly put upon his haunches, and hears or listens to the heels or spurs, and continues duly balanced between the heels, without throwing to either side.

This happens, when a horse has a fine sense of the aids of the hand and heel.

ECURIE, is a covert place for the lodging and housing of horses.

ECUYER, a *French* word (in *English* querry) which has different significations in *France*.

In the academy or manage, the riding-master goes by the name of *Ecuyer*.

EEL. It is agreed by most men, that the eel is a most dainty fish; the *Romans* have esteemed her the Helena of their feasts, and some the queen of palate-pleasure. But most men differ about their breeding: some say they breed by generation as other fish do, and others that they breed, as some worms do, of mud; as rats and mice, and many other living creatures are bred in *Egypt*, by the sun's heat, when it shines upon the overflowing of the river *Nilus*: or out of the putrefaction of the earth, and divers other ways. Those that deny them to breed by generation as other fish do, ask, if any man ever saw an eel to have a spawn or melt? and they are answered, that they may be as certain of their breeding as if they had seen spawn: for they say, that they are certain that eels have all parts fit for generation, like other fish, but so small as not to be easily discerned, by reason of their fatness; the he and the she eel may be distinguished by their fins.

And

And RONDELETIUS says, he has seen eels cling together like dew-worms.

And others say, that eels growing old, breed other eels out of the corruption of their own age, which Sir FRANCIS BACON says, exceeds not ten years. And others say, that as pearls are made of glutinous dew-drops, which are condensed by the sun's heat in those countries, so eels are bred of a particular dew falling in the months of *May* or *June* on the banks of some particular ponds or rivers, adapted by nature for that end, which in a few days are by the sun's heat turned into eels; and some of the ancients have called the eels that are thus bred, the offspring of JOVE. There has been seen in the beginning of *July*, in a river not far from *Canterbury*, some parts of it covered over with young eels about the thickness of a straw; and these eels lay on the top of that water, as thick as motes are said to be in the sun: the like of other rivers, as namely the *Severn*, where they are called yelvers; and in a pond or mere near *Staffordshire*, where about a set time in summer, such small eels abound so much, that many of the poorer sort of people that inhabit near to it, take such eels out of this mere with sieves or sheets, and make a kind of eel-cake of them, and eat it as bread. And GESNER quotes venerable BEDE to say, that in *England* there is an island called *Ely*, by reason of the innumerable number of eels that breed in it. But that eels may be bred as some worms, and some kind of bees and wasps are either of dew, or out of the corruption of the earth, seems to be made probable by the barnacles and young goslings bred by the sun's heat, and the rotten planks of an old ship, and hatched of trees; both which are related for truths by DU BARTAS and LOBEL, CAMDEN, and GERHARD in his *Herbal*.

It is said by RONDELETIUS, that those eels that are bred in rivers that relate to, or are nearer to the sea, never return to the fresh waters, as the salmon does, when they have once tasted the salt water; and though Sir FRANCIS BACON will allow the eel's life to be but ten years, yet he, in his history of life and death, mentions a lamprey belonging to the *Roman* emperor, to be made tame, and so kept for almost threescore years: and that useful and pleasant observations were made of this lamprey, that CRASSUS the orator who kept her, lamented her death. And we read in doctor HAKEWELL, that HORTENSIUS was seen to weep at the death of a lamprey that he had kept long.

It is granted by all or most men, that eels, for about six months, that is to say, the six cold months of the year, stir not up and down, neither in the rivers, nor in the pools in which they usually are, but get into the soft earth or mud, and there many of them together bed themselves, and live without feeding upon any thing, as some swallows have been observed to do in hollow trees for those six cold months: this they do, as not being able to endure winter weather: for GESNER quotes ALBERTUS to say, that in the year 1125, that year's winter being more cold than usually, eels did by nature's instinct get out of the water into a stack of hay in a meadow upon dry ground, and there bedded themselves, but at last a frost killed them. And CAMDEN relates that in *Lancashire*, fishes were digged out of the earth with spades, where no water was near to the place. The eel is impatient of cold, so it hath been observed, that in warm weather an eel has been known to live five days out of the water.

Some curious searchers into the natures of fish, observe, that there are several sorts or kinds of eels, as the silver eel, and green eel, with which the river *Thames* abounds, and those are called grigs; and a blackish eel, whose head is more flat and bigger than ordinary eels; also an eel whose fins are reddish, and seldom taken in this kingdom: these several kinds of eels are, some say, diversly bred out of the corruption of the earth, and some by dew, and other ways; and it is affirmed by some for certain, that the silver eel is bred by generation, but not by spawning as other fish do, but that her brood come alive from her, being then little live eels, no bigger nor longer than a pin.

The eel may be caught with divers kinds of baits: as with powdered beef, with a lob-worm, a minnow, or gut of a hen, chicken, or the guts of any fish, or with almost any thing, for he is a greedy fish. He may be caught with a little lamprey, which some call a pride, and may in the hot months be found many of them in the *Thames*, and in many mud-heaps in other rivers.

Note, That the eel seldom stirs in the day, but then hides himself, and therefore is usually caught by night. He may be then caught by laying hooks, which you are to fasten to the bank or twigs of a tree; or by throwing a string cross the stream with many hooks at it, and those baited with the aforesaid baits, and a clod or plummet, or stone, thrown into the river with this line, that so you may in the morning find it near to some fixt place, and then take it up with a drag-hook or otherwise.

Eels do not usually stir in the day time, for then they hide themselves under some covert, or under boards or planks about flood gates, or weares, or mills, or in holes in the river banks; so that you observing your time in a warm day, when the water is lowest, may take a strong small hook tied to a strong line, or to a string about a yard long, and then into one of these holes, or between any boards about a mill, or under any great stone or plank, or any place where you think an eel may hide or shelter herself, you may, with the help of a short stick put in your bait, but leisurely, and as far as you may conveniently: and it is scarce to be doubted, but that if there be an eel within the sight of it, the eel will bite instantly, and as certainly gorge it: you need not doubt to have him, if you pull him not out of the hole too quickly, but pull him out by degrees; for he lying folded double in his hole, will with the help of his tail break all, unless you give him time to be wearied with pulling, and so get him out by degrees, not pulling too hard.

The haunts of the eel are weeds, under roots, stumps of trees, holes, and clefts of the earth, both in the banks and at the bottom, and in the plain mud: where they lie with only their heads out, watching for prey. They are also found under great stones, old timber, about flood-

flood-gates, weares, bridges, and old mills: they delight in still waters, and in those that are foul and muddy; though the smaller eels are to be met with in all sorts of rivers and soils.

Although the manner in which eels, and indeed all fish are generated, is sufficiently settled, as appears in the foregoing notes, there yet remains a question undecided by naturalists, and that is, Whether the eel be an oviparous or a viviparous fish? WALTON inclines to the latter opinion. The following relation from BOWLKER may go near to determine the question.

Taking it for granted then that eels do not spawn, all we have to say in this place is, that though, as our author tells us, they are never out of season, yet, as some say, they are best in winter, and worst in *May*: and it is to be noted of eels, that the longer they live the better they are. *Angler's Sure Guide*, 164.

Of baits for the eel, the best are lob-worms, loaches, minnows, small pope or pearch with the fins cut off, pieces of any fish, especially bleak, he being very lucid, with which I have taken very large ones.

As the angling for eels is no very pleasant amusement, and is always attended with great trouble and the risque of tackle, many, while they angle for other fish, lay lines for the eel, which they tie to weeds, flags, *&c.* with marks to find them by; or you may take a long packthread line, with a leaden weight at the end, and hooks looped on at a yard distance from each other: fasten one end to the flags, or on the shore, and throw the lead out, and let the line lie some time, and in this way you may probably take a pike.

The river *Kennet* in *Berkshire*, the *Stour* in *Dorsetshire*, *Irk* in *Lancashire*, and *Ankham* in *Lincolnshire*, are famed for producing excellent eels: the latter to so great a degree, as to give rise to the following proverbial rhyme:

Ankham eel, and *Witham* pike,
In all *England* is none like.

But it is said there are no eels superior in goodness to those taken in the head of the *New River* near *Islington*; and I myself have seen eels caught there with a rod and line, of a very large size.

Eels contrary to all other fish, never swim up, but always down the stream.

A Way of taking Eels.

Take five or six lines (or what number you think fit) each of them about sixteen yards long, and at every two yards make a nooze to hang on a hook armed, either to double thread or silk twist, for that is better than wire: bait your hooks with millers thumbs, loaches, minnows, or gudgeons: to every nooze let there be a line baited, and all the lines must lie across the river, in the deepest place, either with stones, or pegged down, lying in the bottom. You must watch all night, or rise very early in the morning at break of day (or else you will lose many that were hung) and draw up the lines, upon each of which you may expect two or three eels or grigs.

EEL-SPEAR; this instrument is made for the most part with three forks or teeth, jagged on the sides: but some have four, which last are the best; this they strike into the mud at the bottom of the river, and if it chance to light where they lie, there is no fear of taking them.

But to take the largest eels of all, night-hooks are to be baited with small roaches, and the hooks must lie in the mouth of the fish.

EEL-BACK'D HORSES, are such as have black lists along their backs.

EFFECTS OF THE HAND, are taken for the aids, *i. e.* the motions of the hand that serve to conduct the horse.

There are four effects of the hand, or four ways of making use of the bridle, namely, to push the horse forwards, or give him head; to hold him in; and turn the hand either to the right or left. *See* NAILS.

ELVERS, a sort of grigs, or small eels, which at a certain time of the year swim on the top of the water, about *Bristol* and *Gloucester*, and are skimmed up in small nets. By a peculiar manner of dressing they are baked in little cakes, fried, and served up to table.

EMBRACE THE VOLT. A horse is said to embrace a volt, when in working upon volts he makes a good way every time with his fore-legs.

Such a horse has embraced a good deal of ground; for from the place where his fore-feet stood, to where they now stand, he has embraced, or gone over, almost a foot and a half.

If he does not embrace a good deal of ground, he will only beat the dust; that is, he will put his fore-feet just by the place from whence he lifted them.

Thus the opposite term to embrace a volt is, beating the dust.

A horse cannot take in too much ground, provided his croupe does not throw out; that is, provided it does not go out of the volt.

EMPRIMED (Hunting term) used by hunters when a hart forsakes the herd.

To ENDEW (in Falconry) is a term used when a hawk so digests her meat, that she not only discharges her gorge of it, but even cleanses her pannel.

ENGOUTED (in Falconry) is a term used when a hawk's feathers have black spots in them.

ENLARGE A HORSE, OR MAKE HIM GO LARGE, is to make him embrace more ground than he covered.

This is done when a horse works upon a round, or upon volts, and approaches too near the centre; so that it is desired he should gain more ground, or take a greater compass.

To enlarge your horse, you should prick him with both heels, or aid him with the calves of your legs, and bear your hand outwards.

Your horse narrows, enlarge him, and prick him with the inner heel, sustaining him with the outer leg, in order to press him forwards, and make his shoulders go.

Upon such occasions, the riding masters cry only, large, large. *See* INLARGE.

To

To ENSEAM A HAWK, } (in Falconry) is a term
To ENSAIM A HAWK, } used for purging a falcon, or horse of his glut and grease.

ENSEELED, (in Falconry) a term used of a hawk, which is said to be enseeled, when a thread is drawn through her upper eye-lid, and made fast under her beak, to take away or obstruct the sight.

ENTABLER. A word used in the academies, as applied to a horse whose croupe goes before his shoulders in working upon volts: for in regular manage, one half of the shoulders ought to be before the croupe. Your horse entables, for in working to the right, he has an inclination to throw himself upon the right heel, but that fault you may prevent by taking hold of the right rein, keeping your right leg near, and removing your left leg as far as the horse's shoulders.

A horse cannot commit this fault without committing that fault that is called in the academies aculer, which see; but aculer may be without entabler. *See* ACULER *and* EMBRACE.

To ENTER A HAWK, a term used of a hawk, when she first begins to kill.

To ENTER HOUNDS, is to instruct them how to hunt.

The time of doing this is when they are seventeen or eighteen months old, then they are to be taught to take the water and swim; they are to be led abroad in the heat of the day to enable them to endure exercise: they must be led through flocks of sheep and warrens to bring them to command.

They must be brought to know their names, to understand the voice of the huntsman, the sound of the horn, and to use their own voices.

Noon is the best time of entering them, in a fair warm day; for if they be entered in a morning, they will give out when the heat comes on.

Take in the most advanced, that the game may not stand long before them, but that the hounds may be rewarded; you ought to do this at least once a week, for two months successively.

By this means they will be so fleshed and seasoned, with that game you enter them at, that they will not leave off the pursuit.

You must also take care to enter them with the best and staunchest hounds that can be got, and let there be not one barking cur in the field.

The hare is accounted the best game to enter your hounds at, for whatsoever chase they are designed for, they will thereby learn all turns and doubles, and how to come to the hollow; they will also come to have a perfect scent, and hard feet, by being used to highways, beaten paths, and dry hills.

They must at first have all the advantages given them that may be, and when the hare is started from her form, let the scent cool a little, observing which way she went, and then let the hounds be laid on with the utmost help and advantage that can be, either of wind, view, or hollow, or the pricking in her passage.

Nor will it be amiss, if they have the advantage of a hare tired the same morning in her course.

Care must also be taken that they hunt fair and even, without lagging behind; straggling on either side, and running wildly on head: and in case any be found committing such faults, they must be beaten into the rest of the pack, and forced to the scent along with them.

The like is to be done if they refuse to strike upon a default, but run on babbling and yelping without the scent, by doing which they draw away the rest of the dogs, until some of the elder dogs take it, then let them be cherished with horn and hollow.

If any of the young whelps, trusting more to their own scents, than to the rest of the pack, and consequently are cast behind, work out the defaults by their own noses, and come to hunt just and true; in such cases they must have all manner of encouragement and assistance, and they must be left to work it out of themselves at their own pace: for such dogs can never prove ill, if they are not spoiled by over hastiness and indiscretion; for a little experience in the hunters, and their own experience, will bring them to be the chief leaders.

When the hare is killed, the dogs must not be allowed to break her up, but they must be beaten off; then she is to be cased and cut to pieces, with which the young hounds must be rewarded: and by this means, in a short time, the whelps will be brought to great improvements.

Some are of opinion, that the best way to enter hounds is to take a live hare, and to trail her upon the ground, sometimes one way and sometimes another, and having drawn her at a convenient distance off to hide her there, and the dog taking the wind thereof will run to and fro till he finds her.

The huntsman ought to understand well the nature and disposition of the hounds in finding out the game, for some of them are of that nature, that when they have found out the footsteps they will go forwards without any voice or shew of tail.

Others again, when they have found a head, will shew the game; some again having found the footings of the beast, will prick up their ears a little, and either bark or wag their stern or ears.

Again, there are some that cannot keep the scent, but wander up and down and hunt counter, taking up any false scent; and others again cannot hunt by foot, but only by the sight of the game.

For entering the hounds at a hart or buck; let him be in the prime of grease, for then he cannot stand up or hold the chase so long.

The forest pitched upon should have all the relays at equal proportion as near as may be; then let the young hounds be placed with five or six old staunch hounds to enter them, and let them be led to the farthest and last relay, and cause the hart or buck to be hunted to them, and being come up, let the old hounds be uncoupled, and having found the hart, having well entered the cry, let the young ones be uncoupled; and if any of them are found to lag behind, whip or beat them forwards.

In what place soever you kill the hart, immediately flay his neck and reward the hounds; for it is best to do so while he is hot.

But

But for the more ready entering them, the few following instructions may be of use:

Let them be brought to the quarry, by taking five or six nimble huntsmen, and each having two couple of dogs led in liams, and having unlodged the hart, pursue him fair and softly, without tiring the hounds; and after two or three hours chase, when you find him begin to sink, then cast off your young ones.

Another method, is to take a buck or stag in a toil or net, and having disabled him by cutting one of his feet, let him loose, then about half an hour after gather the young hounds together, and having found out the view or slot of the buck or hart by the blood-hound, uncouple your young dogs, and let them hunt, and when they have killed their game, reward them with it, while it is hot; the most usual part being the neck flayed.

Some enter their young hounds within a toil, but that is not so good: for the hart or buck does nothing then but turn and cast about, because he cannot run an end; by which means they are always in sight of him, so that if afterwards they were to run at force, a free chase being out of sight, the dogs would soon give over. *See* HUNTSMAN.

Here take notice, that with whatsoever you first enter the hounds, and therewith reward them, they will ever after love most.

Therefore, if you intend them for the hart, enter them not first with the hind.

ENTERFERING. A disease incident to horses, that comes several ways, being either hereditary, or by some stiffness in the pace; or by bad and over broad shoeing; which causes him to go so narrow behind with his hinder feet; that he frets one against another, so that there grows hard mattery scabs, which are so sore that they make him go lame; the signs being his ill-going, and the visible marks of the scabs.

The cure: Take three parts of sheeps dung newly made, and one of rye or wheaten flour, which must be dried and mixt well with the dung; kneading it to a paste; then let it be made up into a cake and baked, and apply this warm to the part, and it will heal it soon; or else anoint it with turpentine, and verdegris, mixt together, finely powdered.

ENTERMEWER, (in Falconry) is a hawk that changes the colour of her wings by degrees.

To ENTERPEN, (in Falconry) a term used of a hawk, who they say *enterpenneth;* that is, she has her feathers wrapt up, snarled, or entangled.

ENTERVIEW, (in Falconry) a term used for the second year of a hawk's age.

ENTIER. The *French* word for a stone horse; *entier* is a sort of horse that refuses to turn, and is so far from following or observing the hand, that he resists it. Thus they say:

Such a horse is *entier* on the right hand, he puts himself upon his right heel, and will not turn to the right.

If your horse is *entier*, and refuses to turn to what hand you will, provided he flies or parts from the two heels, you have a remedy for him; for you have nothing to do but to put the *Newcastle* upon him; *i. e.* supple him with a cavesson made after the Duke of NEWCASTLE's way.

ENTORSES. *See* PASTERN.

ENTRAVES, AND ENTRAVONS. *See* LOCKS.

ENTREPAS, is a broken pace or going, and indeed properly a broken amble, that is neither a walk nor trot, but somewhat of an amble.

This is the pace or gait of such horses as have no reins or back, and go upon their shoulders, or of such as are spoiled in their limbs.

ENTRIES, (Hunting-term) are those places or thickets through which deer are found lately to have passed, by which their largeness or size is guessed at, and then the hounds or beagles are put to them for view.

EPARER. A word used in the menage, to signify the flinging of a horse, or his yerking or striking out with his hind legs.

In caprioles, a horse must yerk out behind with all his force; but in balotades he strikes but half out; and in croupades he does not strike out his hind legs at all.

All such yerking horses are reckoned rude.

ERGOT. Is a stub like a piece of soft horn, about the bigness of a chesnut, placed behind and below the pastern joint, and commonly hid under the tuft of the fetlock.

To DIS-ERGOT, or take it out, is to cleave it to the quick with an incision knife, in order to pull up the bladder full of water that lies covered with the ergot.

This operation is scarcely practised at *Paris*, but in *Holland* it is frequently performed upon all four legs, with intent to prevent watery sores and other foul ulcers.

ESQUIVAINE. An old *French* word, signifying a long and severe chastisement of a horse in the menage.

ESSAY OF A DEER, (Hunting-term) is the breast or brisket of that animal.

ESTRAC, is the *French* word for a horse that is light bodied, lank bellied, thin flanked, and narrow chested. *See* BELLY, LIGHT BELLIED, JOINTER, *&c.*

ESTRAPADE, is the defence of a horse that will not obey; who to get rid of his rider, rides hastily before, and while his fore-hand is yet in the air, yerks out furiously with his hind legs, striking higher than his head was before, and during his counter-time goes back rather than advances.

ESTRAY. A beast that is wild in any lordship, and not owned by any man; in which case, if it be cried according to law in the next market towns, and if it be not claimed by the owner within a year and a day, it falls to the lord of the manor.

To EXPEDIATE, signifies to cut out the balls of dogs feet, to hinder them from pursuing the King's game. But Mr. MANWOOD says, it implies the cutting off the four claws of the right side; and that the owner of every dog in the forest unexpediated is to forfeit 3s. 4d.

To EXTEND A HORSE, some make use of this expression, importing to make a horse grow large.

EYES

EYES OF MULES, rheums, or diſeaſes, to cure. If any ſpecks or films happen, the powder of burnt alum, or burnt ſalt, will eat them off; afterwards waſhing with eye-bright, or the juice of clary, to clear or take away any inflammation the other has occaſioned: to purge away rheums, give hyſſop and rue boiled in water.

EYES OF SHEEP, diſtempers or blemiſhes in, to cure. Diſſolve in eye-bright water, or water of honeyſuckles or ſaladine, or any of theſe bruiſed and infuſed in white wine, powder of bole-ammoniac and alum, with which water take and waſh the eyes afflicted often when it is warm, and it will relieve the grievance.

EYES OF SWINE, diſeaſes in, to cure. Take rue, pimpernel, and vervain, each a ſmall handful; dry them in an oven, ſo that they may be powdered; and blow the powder, mixed with the powder of bole-ammoniac, into the eyes affected; it will take away ſpots, and ſtay fluxes of rheums and redneſs. Or,

If the eyes are bloodſhot or have ſpecks, waſh them with the juice of rotten apples and betony, and give ſliced parſnips and turnips in their food; this alſo will take away inflammations in the eyes.

If there be films or ſpots, blow with a quill of the powder of burnt alum into the eye, and it will eat them away; if rheums, or watering, take the juice of houſeleek, celandine, and betony, and waſh the eyes often with it.

EYES, ſore, in bull, ox, cow, or calf, to cure. Take ſix egg-ſhells, and put the meat clean forth, then lay the ſhells between two tile-ſtones, laying the ſtone and ſhells in a hot glowing fire, and burn them well, and cover the edge of the tiles with clay, to keep the aſhes from the ſhells; and when they are burnt, pound them to powder, and ſearce them finely, and it will mend preſently: but blow it in three times a day. Alſo, take white ſugar-candy, pound it ſmall, and blend it with the aforeſaid powder of the ſhells and May butter; or, for want of that, take other butter, without ſalt, and work it into a ſalve; ſo anoint the eyes morning, noon, and night, and it will help them, Or,

Take mutton-bones, and burn them very well, pound them to powder, and ſearce them well; then take burnt alum and tutty, with white ſugar-candy and juice of ivy, and it will help them that have a flame which came by a chaff or ſtroke. Alſo take the marrow of a gooſe wing, and it will help them; alſo take white ſalt and burn it in a dock, or wet cloth; then take the middle core of it, and mix it with the juice of ſaladine, and it will help them; or drop juice of celandine or pimpernel into it.

There is alſo a diſeaſe in the eyes which is called the inflammation of the eyes; coming by blood, and it breeds choler and blindneſs; ſometimes the beaſt ſees a little, and ſometimes not at all.

You muſt firſt cord them in the neck, and bleed them in the temples under the eyes; let them bleed freely, and put in ſome burnt alum and live honey mixed together every day, and they will certainly mend.

EYES OF HORSES that are very bright, lively, full of fire, pretty large, and full, are moſt eſteemed; but ſuch as are very big, are not the beſt; neither ſhould they be too goggling or ſtaring out of the head, but equal with it; they ſhould alſo be reſolute, bold, and briſk.

A horſe to appear well ſhould look on his object fixedly, with a kind of diſdain, and not turn his eyes another way.

The eye of an horſe diſcovers his inclination, paſſion, malice, health, and diſpoſition; when the eyes are ſunk, or that the eye-brows are too much raiſed up, and as it were ſwelled, it is a ſign of viciouſneſs and ill-nature.

When the pits above the eye are extremely hollow, it is for the moſt part a certain token of old age, though horſes got by an old ſtallion have them very deep at the age of four or five years; as alſo their eyes and eye-lids wrinkled and hollow.

In the eye there are two things to be conſidered, 1. The cryſtal. 2. The bottom or ground of the eye.

The cryſtal is that roundneſs of the eyes which appears at the firſt view, being the moſt tranſparent part thereof, and it ſhould for clearneſs reſemble a piece of rock cryſtal, ſo that it may be plainly ſeen through; becauſe if it is otherwiſe obſcure and troubled, it is a ſign the eye is not good.

A reddiſh cryſtal, denotes that the eye is either inflamed, or that it is influenced by the moon: a cryſtal that is *feuille mort*, or of the colour of a dead leaf upon the lower part, and troubled on the upper, infallibly indicates that the horſe is lunatic; but it continues no longer than while the humour actually poſſeſſes the eye.

The ſecond part of the eye that is to be obſerved, is the ground or bottom, which is properly the pupil or apple of the eye, and to be good, ought to be large and full: it may be clearly perceived, that you may know if there be any dragon, *i. e.* a white ſpot in the bottom thereof, which makes a horſe blind in that eye, or will do it in a ſhort time; this ſpeck at firſt appears no bigger than a grain of millet; but will grow to ſuch a bignefs, as to cover the whole apple of the eye, and is incurable.

If the whole bottom of the eye be white, or of a tranſparent greeniſh white, it is a bad ſign, though the horſe be not quite blind, but as yet ſees a little: however it ought to be obſerved, that if you look to his eyes when oppoſite to a white wall, the reflection of it will make the apples of them appear whitiſh, and ſomewhat inclining to the green, though they be really good; when you perceive this, you may try whether his eyes have the ſame appearance in another place.

If you can diſcern as it were two grains of chimney-ſoot fixed thereto, above the bottom of the eye, it is a ſign the cryſtal is tranſparent, and if beſides this, the ſaid be without ſpot or whiteneſs, then you may conclude that the eye is ſound.

You ſhould alſo examine whether an eye which is troubled and very brown, be leſs than the other, for if it be, it is unavoidably loſt without recovery.

Examine diligently thoſe little eyes that are ſunk in the head, and appear very black, and try if you can perfectly ſee through the cryſtal, then look to the bottom of the eye, and ſee that the pupil be big and large;

large; for in all eyes the ſmall, narrow, and long pupils, run a greater riſk of loſing the ſight than any other. *For their Diſorders and Cure, ſee* WATERS.

EYE OF A HORSE. Some general obſervations from thence to diſcover the quality or condition of a horſe:

1. The walk or ſtep of a blind horſe is always unequal and uncertain, he not daring to ſet down his feet boldly when he is led in one's hand; but if the ſame horſe be mounted by a vigorous rider, and the horſe of himſelf be mettled, then the fear of the ſpurs will make him go reſolutely and freely, ſo that his blindneſs ſhall ſcarcely be perceived.

2. Another mark by which a horſe that is ſtark blind may be known, is, that when he hears any perſon entering the ſtable, he will inſtantly prick up his ears, and move them backwards and forwards; the reaſon is, becauſe a ſprightly horſe having loſt his ſight miſtruſts every thing, and is continually in alarm upon the leaſt noiſe he hears.

3. When horſes have either the real or baſtard ſtrangles, or are changing their foal teeth, or are putting out their upper tuſhes, ſome of them have their ſight weak and troubled, ſo that a man would judge them blind; and ſometimes they actually become ſo.

Note, that this weakneſs of ſight happens oftener in caſting the corner teeth, than any of the reſt.

4. The colours moſt ſubject to bad eyes are, the very dark grey, the flea-bitten, the white ſpotted, that of peach bloſſoms, and frequently the roan. *For the cure of bad Eyes, ſee* ULCER.

Dr. BRACKEN was well verſed in the ſtructure and complaints of the eyes of horſes, of which Mr. LAWRENCE expreſſes his approbation, and ſays, the diſeaſes of the eyes in horſes, natural and acquired, may be conveniently claſſed as follows:—Inflammation, from whatever cauſe; Humour-blindneſs, Diminution of Sight from Debility of the Organs, Cataract, Gutta Serena, External Accidents.

Previous to entering upon the method of cure, permit me to make a few remarks upon an article of prime conſideration, as a remedy in this caſe, which has been introduced ſince the days of GIBSON, viz. GOULARD's Extract of Saturn, a preparation now more commonly uſed in veterinary practice, than the ſugar, or ſalt of lead. GIBSON makes a moderate uſe of lead in his preſcriptions, juſtly obſerving, that the eye is very delicate, and in a recent hurt ſcarce able to endure the common eye-waters. Dr. DARWIN ſpeaks againſt the too early uſe of ſtimulating eye-waters in opthalmy, and recommends afterwards the ſolution of vitriol, in preference to that of lead. Bold meaſures, it is pretended, ſucceed well with the eyes of horſes, but ſuch pretenſions muſt be received with caution; the eye is a very delicate organ, to what animal ſoever it may belong.

Inflammation of the Eye is always ſufficiently viſible. The eye-lid is cloſed, ſwollen, and weeps; the ball is inflamed, and the veſſels filled with ſtagnant blood appear very plain upon the coat. It is firſt neceſſary to inveſtigate the cauſe, ſince it may be merely the intruſion of ſome ſmall extrancous body, ſuch as a hay-ſeed; which being ſuſpected, the eye ought inſtantly to be ſearched with a ſoft rag, or piece of ſpunge dipped in warm ſkim-milk and water, to which may be added a tea-ſpoonful of aqua vegeto.

A caſe of ſlight, or ſuperficial opthalmy, will generally give way in a few days to topical applications, of the emollient and repellent kind. It is the general practice to have recourſe to repellents in the firſt inſtance. Sometimes has been ſeen the ill ſucceſs of it, by an increaſe of the inflammatory ſymptoms, to allay which it has become neceſſary to make inſtant uſe of emollients. Some have ſucceſsfully treated inflamed eyes in horſes, with warm ſkim-milk and water, repeated often, and bread and milk poultices, until the heat and tenſion had abated; afterwards, with a mild ſolution of Goulard. The moſt authorized practice however is, the immediate uſe of cold ſpring water, or vinegar and water, and repellents. Take one pint of the ſtrained decoction of plaintain, roſemary, and red roſe-buds; or inſtead thereof, a pint of clear water, add one drachm ſugar of lead, and one drachm and half of white vitriol. Or the following aqua-vegeto-mineralis: Clear water, one pint; GOULARD's extract, one hundred drops; beſt brandy, a ſmall glaſs. In this proportion has generally been uſed the extract to the eyes of horſes. Bathe externally, and apply internally, with rag or ſpunge, ſeveral times a day. Or honey of roſes, ſpring water, and white of an egg, mixed; and applied with a feather. Some horſes are ſubject all their lives to weak and weeping eyes, upon every ſlight cold, from neglect while colts, and lying about in wet and boggy paſtures; the only remedy is the occaſional uſe of the vegetomineral water. Colts, whilſt breeding their teeth, and horſes with irregular teeth, are liable to ſimilar inconvenience; the ſame external method, with ſalts, and moderate bleeding, and extirpation, or filing down the preternatural teeth.

Humour-blindneſs, or Inveterate Opthalmy. The whole eye is inflamed, both internally and externally, and the admiſſion of light cauſes intolerable pain; the proximate cauſe is either obſtruction in the capillaries, the blood being too denſe for circulation, or a dilatation and weakneſs of the veſſels themſelves. This diſeaſe is curable with two proviſos; being taken in time, and the eye being naturally good; otherwiſe the attempt at cure is fruitleſs.

Liniments for the Eyes. Mild and cooling: ointment of tutty, one ounce; honey of roſes, two drachms; white vitriol, one ſcruple. Detergent: myrrh, finely powdered, half a drachm; camphor, five grains; white vitriol, ten grains; honey, two drachms; rub them together with ſpring water. To be uſed with a feather or pencil in foulneſs from much diſcharge.

For a film, web, or ſpeck left upon the outermoſt coat of the eye, after the inflammation ſhall have ſubſided, there ſeems hitherto to have been no remedy, but corroſive powders or waters; although Dr. DARWIN ſeems to hint at the practicability of an inſtrumental operation. SOLLEYSEL indeed recommends ſtroaking a white film with the thumb covered with wheat flour, the eyes being previouſly waſhed; which he ſays will

will extirpate it much sooner than the use of powders, the best of which for the purpose, in his opinion, is sal ammoniac. BRACKEN recommends Dr. MEAD's ointment, which indeed seems ever to have been most in repute. Take glass, reduced to a fine powder, which sift through fine lawn, and mix with honey. A very small quantity to be tried at first, which may be increased, if not found to produce irritation and painful symptoms. Previous to the use of the ointment, perhaps the eye should always be washed with skim-milk and aqua vegeto. GIBSON advises white vitriol, one drachm, white sugar-candy half an ounce, ground very fine, to be blown into the eye with a tobacco-pipe once a day; or put into the corner of the eye, with the finger and thumb. Of these applications it is necessary to give a caution, that before their use be hazarded, it be well ascertained, that the defect intended to be removed be really situate upon the outer coat of the eye, since such remedies can have no possible effect upon the internal parts, and may inflame, irritate, and torture to no manner of purpose.

Diminution of Sight from Debility of the Organs. It is doubtless owing to their various hard laborious services, that horses are more subject to diseases of those most tender and sensible organs the eyes, than any other animals; thence perhaps also the source of their hereditary defects. Hard labour, particularly heavy draught, and repeated violent exertions at dead pulls, will produce blindness; also poor and unsubstantial keep. The signs are, a gradual loss of convexity, or plumpness in the eyes, with dulness, and imperfect sight at intervals. If the eyes are naturally good, a cure may be wrought by mending the keep of the horse, and the constant use, twice a day, of the strengthening saturnine collyrium prescribed in humour-blindness. Bathe the temples occasionally with distilled vinegar and brandy mixed.

Cataract or Glaucoma, for they appear to be one and the same disease, is a suffusion, or cloud upon the *pupilla*, commonly called the sight of the eye, at first partially, in the end totally, obstructing the ingress of the rays of light: the proximate cause is said to be a preternatural affection of the crystalline, or second humour of the eye, which is changed, becomes opaque, and impervious to the rays of light; the remote cause, in horses particularly, is almost always natural bad conformation of the organ, by which the humours are predisposed to other causes of the disease. That which is termed in the language of the stable, Lunatic, or Moon-blindness, is nothing but the intermittent or periodical blindness, usually consequent of the initient cataract.

Moon-blindness generally makes its appearance in horses, at five, or before six years old; and the cataract may be a year or two, or more, in coming to perfection. The symptoms in the mean time are well known; cloudiness, imperfect sight, in one or both eyes; in some a discharge, with an eye quite closed at intervals; well and tolerably clear again: in others, scarce any discharge, but a gradual wasting and decay of sight. As to cure, it is scarce to be expected, unless in a very rare case of a cataract occurring in a naturally good eye, when the disease would submit to that method already laid down in humour-blindness; in general, moon-blindness is too much a disease of debility, to require those considerable evacuations. Should however the disease be supposed to originate in obstructed humours, and a depraved state of the blood, mercurial physic, rowels, and tying up the temporal arteries or veins, according to the nature of the case, have been recommended. BRACKEN says he couched one horse with success, but he does not tell us whether to render his success of real use, he made the patient a present of a pair of concave spectacles, and taught him their use; since what with the loss of convexity in the *cornea*, from the disease first, and afterwards from the operation, the horse would see but wildly after all, without artificial help.

In a *Gutta Serena* both eyes are generally affected, and are vulgarly called glass-eyes, appearing clear and shining, although they admit little or no light. They are sometimes large and prominent like calves eyes, at others small and flat, in colour often of a light blue, the pupil being deep blue, or black. The pupil neither dilates nor contracts, which is pretty much the same as to say, the eye, or rather its vision, is extinct; and that again is to say, no cure need be expected. The defect has always been supposed to originate in a want of irritability in the optic nerve. According to DARWIN. Electricity. Blisters on the head. Opium, and corrosive sublimate mercury, four or six weeks. Would not sneezing powders be beneficial in the beginning of the disease, or turning to grass, that the constant depending situation of the head in feeding, might invite an accession of blood and nourishment to the eyes?

External accidents. Contusions on the eyes are to be treated with coolers, repellents, fomentations or poultices, and bleeding. Sometimes from a blow or stroke upon the eye, the juices, naturally clear and pellucid, will stagnate and turn to a pearl colour, or quite white, over the whole surface, and the horse will be nearly or totally blind; but such symptoms will in a few days submit to proper treatment. Wounds of the eyes may be mortal if they penetrate the orbit to the bottom, where the branches of the optic nerves pass from the *cerebellum*; should the *retina* be pressed, which is composed of the optic nerve, and many small twigs of veins and arteries, blindness is unavoidable, and perhaps convulsions may ensue; the same may be expected from the fracture, or depression of the bones of the orbit, or socket, but a wound, or puncture through some of the coats and humours is curable; for instance, the *cornea*, or horny coat may be perforated, the humour let out, and vision interrupted, and yet the humour shall be replenished, and sight restored in ten or twelve hours time, as cockers often experience: with the exception, however, that the wound be not deep enough to touch the chrystalline humour, which would become changed or darkened from the accident, and occasion blindness.

The treatment of wounds in these parts must be conducted on the same principles with those of any other, respect only being had to their superior sensibility, and the danger of inflammation and defluxion.

Bleed. A rowel in the chest, or belly. An opening diet. Walking in the shade. Avoid all harsh applications, particularly that common one in these cases, oil of turpentine. If the lid be divided, give but one stitch with a straight needle, proper for superficial wounds, the parts not being drawn too close, but only so far as to bring the edges together, that there may be room for the discharge, should the eye-ball be wounded. Honey of roses, one ounce; tincture of myrrh, one drachm, is the proper dressing. Dip a pledget of lint (for tow or hurds are too harsh) into the mixture warmed, and apply it fresh once a day, until the wound be healed. Should fomentations be necessary, take the following form: elder-flowers, red roses, and mallows, each a handful; nitre, half an ounce; GOULARD's extract, three tea-spoonfuls. Infuse in a quart boiling water, strain through a linen cloth, and when cold, add half a pint Red Port wine. Use two thick woollen cloths alternately, half an hour, the liquor not being made too hot, but warmed again, should it grow too cool; the quantity will last two days, and the eye may be fomented five or six times.

EYE OF THE BRANCH OF A BRIDLE, is the uppermost part of the branch which is flat with a hole in it, for joining the branch to the headstall, and for keeping the curb fast.

EYE OF A BEAN, is a black speck or mark in the cavity of the corner teeth, which is formed about the age of five and a half, and continues till seven or eight.

And it is from thence we usually say, such a horse marks still; and such a one has no mark. *See* TEETH.

EYE-FLAP. A little piece of leather, that covers the eye of a coach-horse when harnessed.

EYESS. } A young hawk newly taken out of the
NYESS. } nest, and not able to prey for herself.

It being difficult to bring such a bird to perfection, she must be fed, first in a cool room that has two windows, one to the north and the other to the east, which are to be opened and barred over with laths, but not so wide as for a hawk to get out, or vermin to come in; and the chamber ought to be strewed with fresh leaves, *&c.*

Her food must be sparrows, young pigeons, and sheeps hearts; and her meat should be cut while she is very young or little, or shred into small pellets, and she must be fed twice or thrice a day, according as you find her endure it, or put it over.

When she is full summed and flies about, give her whole small birds, and sometimes feed her on your fist, suffering her to strain and kill the birds in your hand, and sometimes put live birds into her room, and let her kill and feed on them, and hereby you will not only neul her, but take her off from that scurvy quality of hiding her prey.

Again, go every morning into the room, and call her to your fist: as soon as she has put forth all her feathers, take her out of the chamber and furnish her with bells, hewits, jesses, and lines; it will be absolutely necessary to feel her at first, that she may the better endure the hood and handling; and the hood should be a rufter, one that is large and easy, which must be put on and pulled off frequently, stroking her often on the head, till she stands gently; and in the evening unseel her by candle light. *See the manner of* SEELING A HAWK.

EYRE OF THE FOREST. The justice-seat or court, which used to be held every three years by the justices of the forest, journeying up and down for that purpose.

EYRIE (in Falconry) a brood, or nest, a place where hawks build and hatch their young.

FALCADE, a horse makes falcades when he throws himself upon his haunches two or three times, as in very quick corvets; which is done in forming a stop and half stop.

A falcade therefore, is this action of the haunches and of the legs, which bend very low, as in corvets, when you make a stop or half stop. Thus they say,

This horse stops well; for he makes two or three falcades, and finishes his stop with a pesate.

This horse has no haunches, he will make no falcades.

The falcades of that horse are so much prettier, that in making them his haunches are low.

Stop your horse upon the haunches, in making him ply them well; so that after forming his falcades, he must resume his gallop without making a pesate; that is, without stopping or marking one time: and thus he will make a half-stop. *See* STOP, HALF-STOP, HAUNCHES, *and* TIME.

FALCON. } Of these there are seven kinds, *viz.*
FAULCON. } falcon gentle, the haggard falcon, the Barbary or tartaret falcon, the gerfalcon, the saker, the lanner, the Tunician.

Falcons of one kind differ much, and are differently named, according to the time of their first reclaiming, places of haunt, and the countries from whence they come; as mewed hawks, ramaged hawks, soar hawks, eyesses; and these again are divided into large hawks, mean hawks, and slender hawks.

All these have different names and plumes according to the nature of the country from whence they come; as some are black, some blank or russet: and they also are different in disposition, as some are best for the field, and others for the river.

Names are also given to falcons, according to their age and taking.

The first is an eyess; which name she bears as long as she is in the eyrie. These are very troublesome in their feeding, they cry very much, and are not entered but with difficulty; but being once well entered and quarried, prove excellent hawks for the hern, river, or any sort of fowl, and are hardy and full of mettle.

The second is a ramage falcon, which name she retains from the time of her leaving the eyrie, during the months of *June*, *July*, and *August*.

These are hard to be manned, but being well reclaimed, are not inferior to any hawk.

The

The third is a soar-hawk; so called, *September*, *October*, and *November*.

The first plumes they have when they forsake the eyrie, they keep a whole year before they mew them, which are called soar-feathers.

The fourth is termed murzarolt, (the latest term is carvist, as much as to say, carry on the fist) they are so called *January*, *February*, *March*, and *April*, and till the middle of *May*, during which time they must be kept on the fist.

They are for the most part very great baters, and therefore little eaters: they are bad hawks, frequently troubled with filander worms, and are rarely brought to be good for any thing.

The fifth are called enter-mews, from the middle of *May* to the latter end of *December*; they are so called because they cast their coats.

FALCONER. One who tames, manages, and looks after falcons, or other hawks.

FALLING-EVIL IN HORSES. A disease proceeding from ill blood, and cold thin phlegm gathered together in the fore part of the head, between the panicle and the brain, which being dispersed over the whole brain, suddenly causes the horse to fall, and bereaves him of all sense for a time.

The symptoms of this distemper are, when the horse is falling, his body will quiver and quake, and he will foam at the mouth, and when you would think him to be dying, he will rise up on a sudden and fall to his meat.

Spanish, *Italian*, and *French* horses, are more subject to this distemper than *English*.

The cure: Bleed the horse in the neck, taking away a good quantity of blood; and bleed him again in the temple veins and eye veins, four or five days after: afterwards anoint his body all over with a comfortable friction, and bathe his head and ears with oil of bay, liquid pitch and tar mixed together, and make him a canvass cap quilted with wool, to keep his head warm, and give him a purging or scouring. *See* PALSY.

FALLOW, being of a palish red colour, like that of a brick half burnt; as fallow deer.

FALLOW-HOUNDS are hardy, and of a good scent, keeping well their chase without change; but not so swift as the white; they are of a strong constitution, and do not fear the water, running surely, and are very hardy; commonly love the hart before any other chase.

Those that are well jointed, having good claws, are fit to make blood-hounds, and those which have shagged tails are generally swift runners.

These hounds are fitter for princes than private gentlemen, because they seldom run more than one chase, neither have they any great stomach to the hare, or other small chases: and that which is worst of all, they are apt to run at tame beasts.

FALSE QUARTER IN A HORSE, is a cleft, crack, or chine sometimes on the outside, but for the most part on the inside of his hoof, being an unsound quarter, appearing like a piece put in, and not at all intire: it is attended with a violent pain and opening as the horse sets his foot to the ground.

This distemper, as to the inward cause, is the effect of a dry brittle hoof, and narrow-heels; it comes by ill shoeing and paring, or else by gravelling, or a prick with a nail or stub, which will occasion halting, and waterish blood will issue out of the cleft.

The cure: Cut away the old corrupt hoof, and having the whites of nine eggs, powder of incense, unslacked lime, mastic, verdigris, and salt, of each four ounces, mix them together, and dip into them as much hards as will cover the whole hoof, and apply them to the sorrence, and lay swine's grease all about it, the thickness of an inch or more; do this likewise underneath, and tie on all so fast that it may not be stirred for a whole fortnight at least, then renew the same application, and the horse will require no other dressing to compleat the cure.

FAR, an appellation given to any part of a horse's right side; thus the far foot, the far shoulder, *&c.* is the same with the right foot, the right shoulder, *&c.*

FARCIN, FARCY, FASHION, } A creeping ulcer, and the most loathsome, stinking, and filthy disease, that a horse can be affected with; proceeding from corrupt blood, engendered in the body by over heats and colds, which by spreading and dilating themselves, will at last over-run the whole body of the horse; but it commonly arises in a vein, or near some master vein that feeds and nourishes the disease.

This distemper is sometimes occasioned by spur-galling with rusty spurs, snaffle-bitt, or the bite of another horse infected with the same disease: or if it be in the leg, it may come by one leg's interfering with the other, *&c.*

In the beginning of this disease, a few small knobs, or tumours, are found on the veins. They resemble grapes, and are painful to the touch, so that the creature will shew evident marks of it's uneasiness on their being pressed with the finger. They are at first very hard, like unripe grapes, but in a very little time become soft blisters, which break and discharge a bloody matter, and become very foul and untoward ulcers. This disease appears in different places in different creatures. Some shew it first on the head, some on the external jugular vein, some on the plate vein, extending from thence downwards on the inside of the fore-leg towards the knee, or upwards towards the brisket; in some it first appears about the pasterns, on the sides of the large veins of the inside of the thigh, extended towards the groin; and in others on the flanks, spreading by degrees towards the lower belly.

The Method of Cure.

When the farcy attacks only one part of a horse, and where the blood vessels are small, it may be easily cured; but when the plate vein is affected, and turns chorded, and especially when the crurial veins within side of the thigh are in that condition, the cure becomes very difficult, and the creature is rarely fit for any thing after it, but the meanest drudgery. Those therefore who depend upon some particular medicine, and flatter themselves with being able to cure with it every species of the farcy, will find themselves wretchedly

 mistaken;

mistaken; various medicines are necessary, according as the disease is superficial or inveterate: the former is easily cured, nay sometimes moderate exercise alone will be sufficient; but the latter requires knowledge and experience, and sometimes baffles the most skilful, and defies the whole power of medicine. Copious bleedings are absolutely necessary, especially if the creature be fat and full of blood. This evacuation always checks the progress of a farcy in it's beginning; but the good effects of it vanish too soon, especially if the horse be too low in flesh. After bleeding, mix four ounces of cream of tartar, with a sufficient quantity of lenitive electuary, to make it into balls, and give the dose every other day for a week; and at the same time give him three ounces of nitre every day in his water. While these medicines are given inwardly to remove the cause, let the tumours be rubbed twice a day with the following ointment: Take of ointment of elder, four ounces; of oil of turpentine, two ounces; of sugar of lead, half an ounce; of white vitriol powdered two drachms: mix the whole well together in a glass mortar, and keep it for use.

If the tumours break and run a thick well digested matter, it is a sign that the disease is conquered, and the creature will soon be well; but it will be necessary to give him two ounces of the liver of antimony every day for a fortnight, and two ounces every other day for a fortnight longer. This method will never fail in a farcy where the small veins only are affected; and a small time will complete the cure.

But when the farcy affects the large blood vessels, the cure will be far more difficult. When the plate or crural veins are chorded, lose no time, but bleed immediately on the opposite side, and apply to the distempered vein the following medicine: Take of the oil of turpentine six ounces, put it into a pint bottle, and drop into it by degrees three ounces of oil of vitriol; be careful in mixing these ingredients, for otherwise the bottle will burst; when therefore you have dropped in a few drops of the oil of vitriol into the bottle, let the mixture rest till it has done smoaking, and then drop in more, proceeding in this manner till the whole is mixed.

If the farcy be situated in the loose and fleshy parts, as those of the flanks or belly, the mixture should consist of equal parts of oil of turpentine and oil of vitriol; but when the seat of the disease is in the parts less fleshy, the proportions above are best adapted to perform the cure. The medicines must be used in the following manner: Take a woollen cloth, and with it rub the part affected, and then apply some of the compound oil to every bud and tumour; continue this method twice a day. At the same time give cooling physic every other day; the balls and nitrous draughts mentioned above will answer the intention. By this treatment the tumours will digest and chords dissolve: but it will be necessary to give the liver of antimony to compleat the cure and prevent the relapse; and also dress the sores when well digested with a mixture of bees-wax and oil, which will heal them, and smooth the skin.

Sometimes the disease will not easily yield to this treatment, especially when situated near the flanks and lower belly. In this case it will be necessary to bathe the parts with the above compound oil as far as the centre of the belly, and at the same time give a course of antimonial medicines. The following composition is reckoned stronger than that given above, and on that account is often used where the disease is obstinate: Take of spirits of wine four ounces; of the oil of vitriol and turpentine, of each two ounces; and of verjuice six ounces; mix the whole with the caution above directed.

When the above method fails, and the distemper becomes inveterate, the following medicine is recommended by an eminent practitioner: Take of linseed oil half a pint; of the oils of turpentine and petre, of each three ounces; of the tincture of euphorbium and hellebore, of each two drachms; of oil of bays, two ounces; of oil of origanum and double aqua-fortis, of each half an ounce: mix the whole together with great caution, and when the ebullition is over, add two ounces of Barbadoes tar.

This medicine must be rubbed on the tumours and chorded veins once in two or three days; observing, that if the mouths of the ulcers are choaked up, or the skin so thick over them as to confine the matter, to open a passage with a small hot iron, and destroy with vitriol the proud flesh, after which it may be kept down by touching it occasionally with oil of vitriol, aqua-fortis, or butter of antimony.

These are the best methods for curing the farcy; a disease which has baffled the attempts of the most skilful, and destroyed many an useful creature. Some of our farriers give the most drastic and dangerous medicines, and even put corrosive sublimate or arsenic into the buds, after opening them. But this is a very bad practice, and often absolutely kills the creature it was intended to cure; for if a small quantity of it gets into the blood, death is the inevitable consequence.

Bleed, according to the strength of the horse, and the apparent violence of the inflammation, though, if he is poor, this evacuation will rather injure than relieve, and is never useful after the first onset of the disease.

Dissolve four ounces of cream of tartar, in a pint of water, by boiling them a few minutes; and whilst hot, pour off the clear liquor upon half an ounce of senna leaves; let them stand until they are cold; then give the strained liquor in one dose, and repeat it every second morning for a week, or until it begins to purge.

The belly being rendered soluble by the above, give the horse half an ounce of nitre every day, for three or four weeks, either mixed in a mash of bran, or dissolved in his drink, as he will best take it.

Night and morning rub the following repellent ointment well into the knobs.

Repellent Ointment.

Take white vitriol, two drachms; sugar of lead, half

half an ounce; oil of turpentine, two ounces: green ointment of elder, four ounces; mix them well together.

By this means the knobs are usually dispersed: but sometimes they break and run; and if the matter is of a good consistence, and there is a disposition to heal, lay aside the above repellent ointment, and dress with the digestive ointment, spread on tow, and secured in the best manner that the part will admit.

If any little lumps remain without hair, give two ounces of the liver of antimony in his corn every day, for a fortnight; then one ounce every day for another fortnight. Instances are very rare where the procedure fails to remove this degree of the disease.

In the second degree, the larger vessels are enlarged and knotted; the feet, the pasterns, and the flanks are affected: in this case, greater difficulty attends; but if you begin early with it, the cure is more easy and certain.

In this, as in the former degree, begin with bleeding, according to the horse's strength; or, as before observed, bleeding must be omitted if the horse is poor; due care being taken, as above directed, to render the bowels lax. Let the knobs be rubbed well with the following liniment.

Liniment for the Farcy.

Take oil of turpentine, six ounces; drop into it, by a little at a time, three ounces of the oil of vitriol; the oil of vitriol will make the oil of turpentine very hot; for which reason the oil of vitriol should be added by very small quantities at a time, and a short space should be allowed betwixt one pouring of the oil and another. When the whole is mixed, let the mixture stand to be cold before it is used.

This mixture may be made with equal parts of the oil of turpentine and the oil of vitriol, when it is to be applied to the loose fleshy parts, as the flanks or the belly.

Wherever there is any swelling or knobs, rub them rather gently with a woollen cloth; and then, with a feather or other convenient means, rub in some of the above liniment, and repeat it twice a day.

After the bowels are made soluble, begin with the use of the nitre, as above directed, continue the liniment and the nitre until the knobs digest, and are nearly dissolved: and when the matter appears kindly, and the edges of the ulcers are free from all callosity, lay aside the nitre, and give the antimony as before directed. When the ulcers seem disposed to heal, apply the digestive ointment instead of the liniment.

Sometimes spurring on the side of the belly, or on the flanks, is the cause of this disease there. To distinguish a few knots of the farcy kind, from knots produced on the veins from any other cause, it may be observed, that those of the farcy kind are painful and smarting; the hair stands up like a little tuft on the knots; and if they discharge any matter it is of a greasy, and yet viscid quality. To remedy these, if you perceive them early, before any increase is made, apply a poultice of bran and vinegar, or verjuice, and renew it once every day: if proud flesh arises, touch it with the oil of vitriol, or other caustic, just before each poultice is applied. In this case the disease being local, externals are all that are needful; but if the knots spread, in consequence of a habit or constitution favouring their increase, rub them with the above liniment, until the matter is of a good quality, and the ulcers seem to heal; then bathe them with either of the following mixtures, and give an ounce of the saffron of antimony in the corn twice a day.

Discutient Mixtures for the Farcy Knots.

Take rectified spirits of wine, four ounces; oil of vitriol, and oil of turpentine, of each two ounces; verjuice, or sharp vinegar, six ounces. Or,

Take white vitriol, one ounce; dissolve it in four ounces of water; add to this, four ounces of spirit of wine, in which half an ounce of camphor is first dissolved; and six ounces of verjuice, or sharp vinegar.

In the third and worst degree, which is when either of the other degrees, through neglect, or other causes, become inveterate; or, where at the first the disease appears at one side of the body, and soon spreads upon the other; in this advanced degree of the disease, the colour and other qualities of the knots and of the sores should be attended to, for sometimes they appear yellowish, are hardish or scirrhous about the edges, which proceeds often from the liver; in such case the disease in the liver must be attended to, or the cure will be frustrated. In case of this yellowish hue, give the following:

Take one handful of the root of sharp pointed dock, sliced; one ounce of monk's rhubarb; of madder, turmeric, and liquorice roots, of each half an ounce; boil them in three pints of water to two pints; then to the strained liquor, while warm, add two drachms of saffron, and one ounce of castile soap: give half of this at night, and the other half in the morning, until the yellowness in the knots begin to wear off.

If the knots look blackish, a mortification is threatened; and the bark must be given freely in forge-water.

If the means recommended in the second degree have been used without the desired efficacy, rub the knots, wherever there is any swelling, with the milder blue ointment, to disperse them; but if they are already burst, dress the ulcers with the following:

Take quicksilver, and Venice turpentine, of each one ounce; mix well by rubbing them together until the quicksilver disappears. If the knots burst, and a proud flesh fills up their orifices, destroy it with a little oil of vitriol; or, if the hardness of the skin hinders the matter from being discharged, open it with a small cautery, then dress them with the quicksilver and turpentine above-mentioned.

Mercurial

Mercurial Alterative Balls.

Take quickſilver, two ounces; divide it well with one ounce of Venice-turpentine; then add to it of diapente and gum guaiacum, of each two ounces; honey, enough to make it into eight balls, one of which may be given every ſecond or third morning. Or,

Take antimony, half a pound; quickſilver, four ounces; flour of brimſtone, two ounces; gum guaiacum, zedoary, and galangal roots, of each two ounces; carui or coriander ſeeds, four ounces; make them into a paſte with honey, and give three or four ounces every day.

In ſome caſes, crude antimony given to the quantity of two ounces, every day with the corn, is very effectual: but after each ſuch doſe the horſe ſhould be gently exerciſed an hour or more. In all diſeaſes, indeed, when a courſe of antimony is in uſe, the exerciſe ſhould be daily, but moderate; and it is of ſome importance that the feeding be very good of its kind; it ſhould be nouriſhing and cordial, given in ſmall quantities, and proportionably the oftener. Antimony frequently purges when given in large doſes; this is prevented when given in ſmall ones, and gradually increaſing them; though ſometimes a gentle aſtringent is required to be joined.

But above all other means, giving mercurials as alteratives, promiſes and indeed produces good effects. Repeated ſucceſs hath attended the following in the worſt caſes.

Take turbith-mineral, twenty or thirty grains; Venice-ſoap, an ounce; make them into a ball to be given every other night for a fortnight; then reſt a week, and proceed again in the ſame manner: if it ſickens or gripes the horſe, or if it runs off by ſtool, add to the ball two drachms of philonum, or five grains of opium. If it ſalivates, deſiſt immediately, and give a purge, and repeat it in ſeven or eight days after; when all appearance of the mouth being affected is gone, begin again with the turbith in leſſer doſes, and repeat them juſt ſo as to prevent its ſalivating.

It ſhould not be forgot, that horſes ſalivate more eaſily than men; probably by reaſon of the more open texture of their ſalivary glands; and perhaps, in part, by the horizontal poſition of their guts retarding the paſſage of the mercury longer than it is in men: however, be this as it will, we muſt attend to the firſt appearance of ſalivation, and check it with all poſſible ſpeed, otherwiſe the horſe will be ſuffocated in a few days. A moderate degree of ſalivation cannot be kept up in a horſe, ſo if not early checked the veſſels will preſently be ſo turgid, as to prove deſtructive.

During the courſe, be very careful to keep him from cold: if he is a ſtrong, freſh horſe, he may loſe three or four pounds of blood once or twice on the day that the turbith is omitted; walk him out half an hour or more, when the weather will permit; but when he comes in he muſt be well curried. If his mouth is tender, feed him with boiled oats, or boiled barley, or ſcalded bran.

After the uſe of the turbith is ended, he may have a quart of hemp-ſeed every day with his corn. Lime-water, with the water which is given him to drink; at the firſt mix them in equal parts, afterwards more and more of the lime-water until he will drink it alone.

The blue ointment, commended above, and in various other parts of this work, is made as follows: alſo the ſtronger ſort.

Milder Blue Ointment.

Take of dried hog's lard, four pounds; of quickſilver, one pound; of Venice-turpentine, two ounces. Rub the quickſilver with the turpentine till the quickſilver diſappears, then add the lard, and mix them well together.

Stronger Blue Ointment.

Take of dried hog's lard, two pounds; of quickſilver one pound; of Venice-turpentine, two ounces; mix them as directed for the milder blue ointment.

The ingenious Dr. Bracken recommends the mercurial ointment, for rubbing the chords and tumours before they break, in order to diſperſe them; and when they are broke, to dreſs the ſores with a mixture compoſed of equal parts of Venice-turpentine and quickſilver. If by this means the mouth become ſore, a gentle purge ſhould be given to prevent a ſalivation. This is doubtleſs a very good method, and if care be not wanting, will often prove effectual.

He alſo recommends the following alterative ball: Take of butter of antimony and bezoar mineral, of each one ounce; beat them up with half an ounce of cordial ball, and give the bigneſs of a walnut, or three quarters of an ounce every day for two or three weeks, faſting two or three hours after.

Having given the former methods of treatment of this complaint, we ſhall give that recommended by Mr. Lawrence, in his excellent Treatiſe on Horſes, who ſays, that the old farriers had ſuch ſtrange methods of curing diſeaſes, that they ſeem at this time of day, to have been the mere vagaries of madmen. In the farcy, after ſtitching up ſome deviliſh medley in the ears of the animal, they put him to hard labour upon ſtraw and water! And both the ancient and the preſent have committed a great error in this caſe, by overlooking the cauſe, and confining their attention ſolely to the viſible effects: they expect too ſpeedy a cure of a chronic diſeaſe, and inſtead of altering and purifying by degrees the blood, where the diſeaſe is grounded, they are ſolely employed in coring, and cauterizing, and poiſoning the ſkin.

The Cure. In the mild farcy, bleed, and next day give an aloetic purge, a mild mercurial one, or ſalts, according to ſtate of body; if much heat, the latter purgative is ever to be preferred. After ſetting of the phyſic, (which may be again required, as well as bleeding

ing at intervals) begin and ſtrictly adhere to an akerative courſe, until the tumours ſhall be effectually diſperſed, how long ſoever that may be, whether ſix weeks or twelve: bathe them in the interim once a day, with doubly camphorated ſpirits and oil of vitriol, equal quantities, mixed; to one pint of which add two ounces of ſpirit of ſal ammoniac. Or, A ſtrong decoction of hemlock, horſeradiſh, and the roots of burdock. Rub the chorded veins every night with an unction of turpentine and ointment of elder, or ſtrong mercurial ointment, if there be no danger of cold; or Venice turpentine, four ounces; quickſilver, ſix drachms; mix. Conſtant moderate labour, by draught, if convenient, will be beneficial. The warm bath is very efficacious in diſſolving the knotty tumours, and cleanſing the ſkin, and ſhould be uſed, where ſuch a conveniency can be had, in moſt ſtages of the farcy. Foxall, the farrier in *Moorfields*, much to his credit, has that kind of accommodation for horſes at his houſe.

The following drink to ſweeten the blood, will be ſerviceable in every ſtage of this diſeaſe, and indeed in many others, where alteratives are required; but as where medicines muſt be long continued, it is exceedingly fatiguing both to the horſe and man, to be conſtantly drenching and balling, there ſeems a neceſſity for giving drinks in the water, and powders in the corn, firſt mixed in a little wetted bran. Take leaves and bark of elder, inner bark of elm, ſharp-pointed dock-root, well cleaned, and madder, half a handful each; turmeric, and Monk's rhubarb, bruiſed and ſliced; liquorice and ſaſſafras, half an ounce each; roſemary and rue, a handful each; boil in three or four pints of water to a quart; in which diſſolve four ounces cremor tartar, and ſweeten with honey. This however, out of form, once for all; ſince few will be at the trouble of theſe decoctions, when nitrated and ſalined water, of pretty nearly the ſame effect, is procured at ſo much leſs trouble.

Should the tumours yield to the preſſure of the finger, and yet be ſlow to diſcharge, make inciſion with the knife, and dreſs the ulcers with brandy and ægyptiacum mixed, or a ſalve of crude mercury, black ſoap, and muſtard ſeed. In an inveterate caſe, rub once a day, or two days, into the chorded veins and ſwellings, the following: linſeed oil, half a pint; oil of turpentine, and petre, each three ounces; tincture of euphorbium, half an ounce; oil of origanum, and double aquafortis, half an ounce each; after the ebullition is over, add two ounces Barbadoes tar. Should the orifices of the buds be choked up with proud fleſh, or the ſkin ſo thickened over the ulcers, that the matter cannot find vent, make inciſion with a ſharp pointed hot iron, and touch the proud fleſh with oil of vitriol, aquafortis, or butter of antimony; or with a ſalve of crude mercury incorporated with aquafortis, or waſh with the ſublimate water. As to internals, when the moſt efficacious meaſures are neceſſary, the turbith mineral may be ventured in ſmall doſes, one ſcruple to half a drachm, in cordial ball, or Venice ſoap, every night, or every other night, for a fortnight, then abſtain a week, and repeat: or in two drachms of philonium, ſhould the horſe be ſick; or four or five grains of opium or camphor; great care being taken of cold, a very neceſſary caution, both with regard to externals and internals; to which another equineceſſary may be joined, that of avoiding the large blood-veſſels, joints, and tendons, in the application of corroſive medicines. Should the mouth become ſore, and the horſe begin to ſlabber, from the uſe of mercurials, deſiſt, until that ſymptom be removed by gentle purges; then proceed with the mercurial courſe, in ſmaller, and more properly adjuſted doſes. Or, Butter of antimony, and bezoar mineral, (from Apothecaries-hall) one ounce each, mix and powder, and beat it up with half a pound of cordial ball. Doſe, the ſize of a walnut, on an empty ſtomach, the horſe faſting three hours after, every day for three weeks. Moderate walking exerciſe. Or. *Antehectica Potarii*, two drachms to half an ounce every other day, in cordial ball. Or. The moſt powerful alterant, with cinnabar and powdered guaiacum. There is no curable ſtage of the diſeaſe which theſe medicines will not effectually touch. To recover the loſt hair, rub the bald places twice a day with an ointment made of honey, ointment of elder, ſpermaceti, and French brandy: the firſt ingredients may be incorporated over a clear fire, and the brandy added afterwards. In a livid and unfavourable appearance of the buds, indicating a cold and languid ſtate of the juices, tending to putridity, omit the deobſtruents, and give the bark, once or twice a day, for four days. Take fineſt Peruvian bark, in powder, one ounce; ſteel filings, or prepared ſteel, two drachms; powdered gentian, half an ounce; juniper berries, and chamomile, powdered, half an ounce each; ground ginger, a teaſpoonful; ball, with any aſtringent ſyrup. Would a ſmall quantity of opium add to the efficacy of this medicine? Or. Cordial ball may be uſed, until ſufficient warmth and vigour be reſtored to the blood, and better colour and diſpoſition to the ulcers. Strength enough being left, the cure may be completed with gentle cleanſing purges. Graſs, that of the ſalt-marſhes preferable.

WATER-FARCIN. This diſeaſe has no reſemblance to a true farcy, it is really a dropſy, and is of two kinds, one produced by a feveriſh diſpoſition terminating on the ſkin, as often happens in epidemical colds: the other a true dropſy, where the water is not confined to the belly and limbs, but is found in different parts of the body, where a great number of ſoft ſwellings appear, which yield to the preſſure of the finger. The laſt generally proceeds from foul feeding, or from the latter graſs, or fogs, which generally riſes in great plenty, mornings and evenings, at the autumnal ſeaſons, and greatly injure the health of ſuch horſes as continue abroad. Nor is this all, the cold rains common at the ſame time, increaſe the evil, and render the blood ſluggiſh and viſcid.

The firſt ſpecies may be relieved by ſlight ſcarifications in the inſide of the leg and thigh, with a ſharp penknife; but in the other ſpecies, we muſt endeavour to diſcharge the water, recover the craſis of the blood, and brace up the relaxed fibres of the whole body. In order to this, a purge muſt be given every week or ten

ten days; and immediately after the first, the following balls: Take of nitre, two ounces; of quills powdered, half an ounce; of camphor, one drachm; and of honey, a quantity sufficient to make the whole into a ball.

Let one of these balls be given every day; and to render it more effectual, let it be washed down with a horn or two of the following drink: Take of black hellebore, fresh gathered, two pounds; wash, bruise, and boil it in six quarts of water, till two quarts are wasted; strain off the liquor, and pour on the remaining hellebore two quarts of white wine, place it in a gentle heat, and let it infuse forty-eight hours; strain it off, and mix both together, and give the horse an hornful or two after each ball. Or,

When the horse has been treated in this manner a sufficient time, that is, till the water is evacuated, and he begins to recover, give him a pint of the following infusion every night and morning, for a fortnight, fasting two hours after it: Take of gentian roots, and zedoary, of each four ounces; of chamomile-flowers, and the tops of centaury, of each two handfuls; of Jesuit's bark, powdered, two ounces; of juniper-berries, four ounces; of filings of iron, half a pound; infuse the whole in two gallons of ale for a week, shaking the vessel often.

FARRIERY. The art and knowledge of preventing, curing, or palliating, the various diseases incident to horses; the practice of which has been hitherto almost intirely confined to a set of persons, who are not only totally ignorant of anatomy, but also of the general principles of medicine. It is not therefore surprising, that their prescriptions should be equally absurd as the reasons they give for administering them. It cannot indeed be expected that farriers, who are almost universally illiterate men, should make any real progress in their profession. They prescribe draughts, they rowel, cauterise, &c. without being able to give any other reason for their practice, but because their fathers did so before them. How can such men deduce the cause of a disease from its symptoms, or form a rational method of cure, when they are equally ignorant of the causes of diseases, and the operation of medicines?

General Directions.

1. It ought to be laid down as a general rule, to give horses as few medicines as possible; and by no means to comply with the ridiculous customs of some, who are frequently bleeding, purging, and giving balls, though their horses be in perfect health, and have no indication that requires such treatment.

2. Proper management in their feeding, exercise, and dressing, will alone cure many disorders, and prevent most; for the simplicity of a horse's diet, which chiefly consists of grain and herbage, when good in kind, and dispensed with judgment, secures him from these complicated disorders which are the general effects of intemperance in the human body.

3. In *France*, *Germany*, and *Denmark*, horses are seldom purged; there they depend on alteratives; the use of the liver of antimony we have from the *French*, which is in general a good medicine for that purpose, and may, in many disorders, be substituted in the room of purging.

4. As hay is so material an article in a horse's food, great care should be taken to procure the best: when it is not extraordinary, the dust should be well shaken out before it is put into the rack; for such is very apt to breed vermin.

5. Beans afford the strongest nourishment of any grain; but are most fit for laborious horses, except on particular occasions. In some seasons they breed a kind of vermin called the red bugs, which are reckoned dangerous; the most approved method in such a case is to get them dried well and split.

6. Bran scalded is a kind of panada to a sick horse; but nothing can be worse than a too frequent application of it, either dry or scalded: for it relaxes and weakens the bowels too much. The botts in young horses may be owing to too much musty bran and chaff, given with other foul food to make them up for sale; therefore the greatest care should be taken that they eat no bran but what is sweet and good.

7. Oats, well ripened, make a more hearty and durable diet than barley, and are by far more agreeable to the constitution of English horses. A certain quantity of cut straw and hay mixed with them, is sometimes of great service to horses troubled with botts, indigestion, and other disorders.

8. Horses who eat their litter, should by all means have cut straw and powdered chalk given them with their feed; as it denotes a depraved stomach, which wants correcting.

9. Salt-marshes are the best pasture for horses who have been surfeited, as well as for many other complaints; they purge more by dung and urine than any other pasture, and make afterwards a firmer flesh; their water is for the most part brackish, and consequently, as well as the grass, saturated with salts from the sea-water.

10. A summer's grass is often necessary; more particularly to horses glutted with food, and which use little exercise; but a month or two' running is proper for most; especially those who have been worked hard, and have stiff limbs, swelled legs, or wind-galls. Also, those whose feet have been impaired by quittors, bad shoeing, or other accidents, are best repaired at grass. Those lamenesses particularly require turning out to grass, where the muscles or tendons are contracted or shrunk; for, by the continual gentle exercise in the field, with the assistance of a patten-shoe on the opposite foot, the shortened limb is kept on the stretch, the wasted parts are restored to their ordinary dimensions, and the limb again recovers its usual tone and strength.

11. Those fields which lie near great towns, and are much dunged, are improper pasture for horses; and, on observation, prove very hurtful to them, if they feed in them all the summer.

12. Horses may be kept abroad all the year, provided they have good stabling, and hay to come to at all times, and are well sheltered from the weather. They are seldom sick when so treated; their limbs are then always clean and dry; and, with the allowance of corn,

corn, will hunt, and do more business than horses that are always kept within doors.

13. If horses, when taken from grass, should grow hot and costive, mix bran and chopt hay with their corn; and at times give them a feed of scalded bran for a fortnight, or longer: let their diet and exercise be moderate for some time, and increase both by degrees.

14. When horses are soiled in the stable, there should be care taken that the herbage be young, tender, and full of sap; whether it be green barley, tares, clover, or any thing else the season may produce; and that it be cut fresh, once every day at least, if not oftener.

15. When horses lose their flesh much in soiling, they should in time be taken to a more solid diet; for it is not in soiling as in grazing: where, though a horse loses his flesh at first, yet after the grass has purged him, he soon grows fat.

16. Young horses, who have not done growing, must be indulged more in their feeding than those come to their maturity; but, if their exercise is so little as to make it necessary to abridge their allowance of hay, a little fresh straw should always be kept in their racks to prevent their nibbling the manger, and so turning crib-biters; they should also be sometimes strapped back, in order to cure them of this habit.

17. It is obvious to every one what care should be taken of a horse after violent exercise, that he cools not too fast, and drinks no cold water, &c. for which reason I shall wave particular directions.

18. Most horses fed for sale have the interstices of their muscles so filled with fat, that their true shapes are hardly known. For which reason a horse just come out of the dealer's hands should at first be gently used. He ought to lose blood, and have his diet lowered, but not too much: walking exercise is best at first, two hours in a day; in a week or fortnight two hours at a time; twice a day; after this treatment for about a month, bleed him again, and give him two or three times a week scalded bran, which will prepare him for purging physic, that may now be given safely, and repeated at the usual intervals.

19. When a horse comes out of a dealer's hands, his cloathing must be abated by degrees, and care taken to put him in a moderately warm stable; otherwise the sudden transition would be attended with the worst consequences.

Blood-Letting.

This article has already been spoken of under its proper head; but, as too much cannot be said on a subject so important, I shall here insert such other observations as were before omitted. Full-fed horses, that stand much in the stable, require bleeding now and then; especially when their eyes look heavy, dull, red, and inflamed; as also, when they feel hotter than usual, and mangle their hay.

Young horses should be bled when they are shedding their teeth, as it takes off those feverish heats they are then subject to. But the cases that chiefly require bleeding, are colds, fevers of most kinds, falls, bruises, hurts of the eyes, strains, and all inflammatory disorders, &c.

It is right to bleed a horse when he begins to grow fleshy at grass, or at any other time when he looks heavy: and it is generally proper to bleed before purging.

Let your horse always be bled by measure, that you may know what quantity you take away: two or three quarts are always enough at one time; when you repeat it, allow for the disorder and the horse's constitution.

Although the operation of blood-letting is generally thought to be pretty well known, yet there are many untoward accidents that frequently happen from the unskilful and inexperienced in performing it. Mr. Clarke, in his Treatise on the Prevention of Diseases incidental to Horses, gives the following cautions and directions:—

As horses are naturally timorous and fearful, which is too frequently increased by bad usage and improper chastisement, they require in some cases, particularly in this of bleeding, to be taken unawares or by surprize, and the orifice made into the vein before their fears are alarmed. For this reason, the fleam and blood-stick, as it is called, have been long in use, and in skilful hands are not improper instruments for the purpose; although with many practitioners the spring-fleam would be much safer, and on that account ought to be preferred. When a lancet is used, the instant the horse feels the point of it, he raises or shakes his head and neck, in order to shun the instrument before the operator has time to make a proper orifice, which frequently proves too small or too large; for this reason, those who have tried the lancet have been obliged to lay it aside.

Many persons tie a ligature or bandage round the neck, in order to raise the vein, and that they may strike the fleam into it with the greater certainty; but a slight view of its effects in preventing this, and its other consequences, will clearly shew the impropriety of the practice.

When a ligature is tied round the neck previous to bleeding in the jugular veins, it is to be observed, that it stops the circulation in both veins at the same time; hence they become turgid and very full of blood, insomuch that they feel under the finger like a tight cord; and as the parts around them are loose and soft, when the stroke is given to the fleam, the vein by its hardness or tightness slips on one side, of course it eludes the stroke; hence a deep wound is made by the fleam to no purpose, and this is sometimes too frequently repeated. People who are unskilful in bleeding, have likewise a custom of waving or shaking the blood-stick, before they strike the fleam, in view of the horse, whose eye is fixed on that instrument; and, when they intend to give the stroke, they make a greater exertion: hence the horse, being alarmed by the motion of it, raises his head and neck, and a disappointment follows. The operation is by this means prolonged by reason of the struggle that ensues; the ligature at the same time still being continued round the neck, a stagnation of the blood in the vessels of the head takes place; and hence it frequently happens, that the horse falls down in an apoplectic fit. In such cases the operator, being

disconcerted, generally desists from any further attempts to draw blood at that time, under the idea that the horse was vicious and unruly, although the very treatment the horse had just undergone rendered bleeding at this time the more necessary, in order to make a speedy revulsion from the vessels of the head. Therefore, a ligature or bandage ought never to be used till such time as the opening is made into the vein; and even then it will not be necessary at all times, if the horse can stand on his feet, as a moderate pressure with the finger on the vein will make the blood flow freely; but, if the horse is lying on the ground, a ligature will be necessary.

But farther, the concussion or shock the horse receives through his falling down in the above situation, which always will happen if the ligature is continued too long, may cause the bursting of a blood-vessel in the head, and the consequence may be the horse's death.

Another custom equally absurd is allowing the blood to fall among straw in a dunghill, in dry sand, or in dry dust, by which means no distinct idea can be formed of the quantity that is or ought to be taken away. Horses in such cases have, from the loss of too much blood, fallen down in a faint before the operator thought of stopping up the orifice. For this and many other reasons which might be mentioned, a measure, as before noticed, always ought to be observed, in order to ascertain the quantity of blood that is taken away.

Some have a custom of drawing or raising out the skin too far from the vein when they pin up the orifice; hence the blood flows from the orifice of the vein into the cellular substance between it and the skin, which causes a large lump or swelling to take place immediately: this frequently ends in what is called a swelled neck; a suppuration follows, which to cure is both tedious and troublesome. In cases where a horse may be tied up to the rack after bleeding in the neck, pinning up the external orifice may be dispensed with; but when a horse is troubled with the gripes, or any other acute disease, in which he lies down and tumbles about, it is necessary that the orifice be pinned up with care, in order to prevent the loss of too much blood.

As the neck or jugular vein on the near side is commonly opened for conveniency by those who are right-handed, the younger practitioner should learn to perform on both sides of the neck. This he will find in practice to be not only useful but necessary, as he may often have occasion to draw blood from horses in very awkward situations; he will likewise find his account in it in a variety of cases, which here need not be particularized.

It is necessary to attend likewise to the proper place for making the opening in the neck or jugular vein; for when the orifice is made too low, or about the middle of the neck, where the vein lies deep under the muscular teguments, the wound becomes difficult to heal, and frequently ends in a suppuration, with a jetting out of proud flesh from the orifice; which, unluckily, is as unskilfully treated in the common method of cure, viz. by introducing a large piece of corrosive sublimate into the wound: this not only destroys the proud flesh in the lips of the wound, but a considerable portion of the flesh around it; and in farriery it is called coreing out the vein. It frequently happens, that this corrosive application destroys the vein likewise; and sometimes violent hemorrhages follow, so as to endanger the life of the creature.

Where the teguments are thinnest, is the place most proper for making the opening in the jugular veins, which from the head is about a hand-breadth, and about one inch below the branching or joining of the vein which comes from the lower jaw, and which may be distinctly seen when any pressure is made upon the main branch of the vein.

When the operation is performed with a fleam, the operator should hold it between the fore-finger and thumb of the left hand; he is to make a slight pressure on the vein with the second finger, and before it becomes too turgid or full make the opening; continue the same degree of pressure on the vein, till such time as the quantity of blood to be taken away is received into a proper measure.

Another great error, which generally prevails in opening the veins with a fleam, is the applying too great force, or giving too violent a stroke to it, by which it is forced through the opposite side of the vein: hence there is danger of wounding the coats of the arteries, as they generally lie under the veins; or, in some particular places, to wounding the tendons, especially when this operation is performed in the legs, thighs, &c. or in the veins, commonly called the plate veins, under the breast, the consequences are frequently very troublesome to remove, and in some cases prove fatal. Mr. Gibson, in his Treatise on the Diseases of Horses, mentions a case of a fine horse that was blooded in the plate veins for a lameness in the shoulder, which was followed with a large oval swelling about the size of a goose egg, which extended upwards on the breast, and likewise down the leg, attended with excessive pain, fever, deadness in the horse's looks, and all other symptoms of a beginning mortification. In order to avoid the consequences sometimes attending these local operations in the breast, legs, &c. and as horses are more or less troublesome and restless, whereby accidents of this kind may happen, it will perhaps be adviseable, in most cases of lameness, &c. to draw blood from the larger veins in the neck only, where there is less danger of accidents, more especially if a spring fleam is used: for, although it might be of some advantage in particular cases to draw blood as near the affected part as possible, yet the bad consequences often attending it ought to counterbalance any advantages that may be expected from it, especially as the quantity of blood drawn from the small veins is but inconsiderable, and of course no great benefit can be expected from it in horses when they are afflicted.

The principal view in drawing blood is the lessening of its quantity, by which the remaining mass circulates with more freedom in the vessels; it likewise takes off the inflammatory tendency of the blood, removes spasms, &c. and prevents other bad consequences that may follow, especially in plethoric habits; and it ought always to be remembered, that, when the signs or symptoms of a disease are taken from the motion of the blood,

blood, the diſorders ariſing from it depend upon its circulation being either increaſed or diminiſhed; hence, therefore, all changes which take place in the texture, quantity, and quality, of the blood, are attended with a diminution or increaſe of its velocity.

Notwithſtanding the caſes which may require bleeding are numerous, yet one general caution is neceſſary, namely, never to take away blood but when it is abſolutely neceſſary; for it is a fluid that may be eaſily taken away, but cannot be ſo eaſily replaced; beſides, the practice of bleeding frequently, or at ſtated times, is very improper, and it diſpoſes the body to become lax, weak, and plethoric. In bleeding, therefore, a due regard muſt always be had to the conſtitution, age, ſtrength, &c. of horſes, and the ſtate or habit of body they are then in.

Although we ought to be ſparing of drawing blood from horſes on trifling occaſions when they may be ſaid to be in health, yet, when caſes occur that do require it, it may not only ſafely, but uſefully, be recommended to take away a greater quantity at once than is generally done: that is, from ſix to eight pounds, which will be about three or four quarts Engliſh meaſure, according to the urgency of the ſymptoms, &c. at the time, ſtrength and age of the horſe conſidered. For as horſes are very ſubject to inflammatory diſorders and thoſe that are of the ſpaſmodic kind, and as bleeding plentifully relaxes the whole ſyſtem in theſe caſes, the taking away a ſmall quantity of blood, about one quart or two pounds, is in fact trifling with the diſeaſe; the horſe is ſaid to have been blooded, and that ſatisfies his owner and the farrier; time is loſt, the diſeaſe acquires ſtrength; it will then be beyond the power of art to mitigate or to conquer it: hence the horſe falls a ſacrifice to timidity and ignorance. It is to be remembered, that inflammatory diſeaſes, particularly when the bowels are affected, make a very rapid progreſs in horſes; and, if they are not overcome at the beginning by bleeding plentifully, a gangrene and mortification in the inteſtines commonly cauſes the death of the horſe in twenty-four or thirty hours.

Purging.

This operation is neceſſary, in horſes that are full and groſs, in ſome diſorders of the ſtomach, liver, &c. but ſhould be directed with caution. Before a purge is given to any horſe, it is neceſſary ſome preparations ſhould be made for it, in order to render the operation more ſafe and efficacious; thus a horſe that is full of fleſh ſhould firſt be bled, and at the ſame time have his diet lowered for a week, eſpecially thoſe that have been pampered for ſale; ſeveral maſhes of ſcalded bran ſhould be previouſly given, in order to open the bowels, and unload them of any indurated excrement, which ſometimes proves an obſtacle to the working of the phyſic, by creating great ſickneſs and griping.

That a horſe is purged with difficulty ſhould be remembered: that the phyſic lies generally twenty-four hours in the guts before it works; and that the tract of bowels it has to paſs through is about thirty yards, all lying horizontally: conſequently reſinous and other improper drugs may, and often do, by their violent irritation, occaſion exceſſive gripings and cold ſweats, ſhave off the very mucus, or lining of the guts, and bring on inflammations, which often terminate in mortifications and death. It is likewiſe remarkable, that the ſtomach and guts of a horſe are but thin, compared to ſome other animals of the ſame bulk, and therefore muſt be more liable to irritation and inflammation.

Horſes who have not the proper benefit of air and exercise in proportion to their food, by being kept much in the ſtable, ſhould in ſpring have a mild purge or two after a previous preparation by bleeding, lowering their diet, and ſcalded maſhes. Thoſe horſes who fall off in their ſtomach, whether it proceeds from too full feeding, or engendering crudities and indigeſted matter, ſhould have a mild purge or two. Horſes of a hot temperature will not bear the common aloetic purges; their phyſic therefore ſhould be mild and cooling.

In ſtubborn dry coughs purging is always found very beneficial: but mild mercurials joined with them make them yet more efficacious. Horſes of a watery conſtitution, who are ſubject to ſwelled legs, that run a ſharp briny ichor, cannot have the cauſes removed any other way ſo effectually as by purging. Some hold this miſtaken notion, viz. that, if a proper prepared purge does not work to expectation, the horſe will be injured by it; for, though it does not paſs by ſtool, its operation may be more efficacious as an alterative to purify the blood, and it may paſs by urine or other proper ſecretions.

The firſt purge you give to a horſe ſhould be mild, in order to know his conſtitution. Purging medicines are very ſucceſsfully given in ſmall quantities, mixed with others; and act then as alteratives. If mercurial phyſic be given, great care ſhould be taken that it be well prepared; and warmer clothing and nice circumſpection are then required.

In the morning early, when the horſe has an empty ſtomach, is the proper time to give him a purge: about three or four hours after he has taken it, he ſhould have a feed of ſcalded bran; and a lock or two of hay may be then put into his rack. The ſame day give him a couple more maſhes; but, ſhould he refuſe warm meat, he may be allowed raw bran.

All his water ſhould be milk-warm, and have a handful of bran ſqueezed in it; but, if he refuſes to drink white water, give it him without bran. Early the next morning give him another maſh; but, if he refuſes to eat it, give him as much warm water as he will drink: let him be properly clothed, and rode gently about. This ſhould be done two or three times a-day, unleſs he purges violently; once or twice will then be ſufficient: give him a feed of oats mixed with bran at night.

A horſe ſhould drink plentifully during the working; but, if he will not drink warm water, he muſt be indulged with cold, rather than not drink at all.

I ſhall next inſert ſome general forms of Purges.

Take ſocotorine aloes ten drachms, jalap and ſalt of tartar each two drachms, grated ginger one drachm, and oil of cloves thirty drops; make this into a ball with ſyrup of buckthorn. Or,

Take aloes and cream of tartar each one ounce, jalap,

two drachms, cloves powdered one drachm, syrup of buckthorn a sufficient quantity.

Or the following, which is highly esteemed: Take aloes from ten drachms to an ounce and a half, myrrh and ginger powdered each half an ounce, saffron and oil of aniseed of each half a drachm.

The following is recommended by Mr. GIBSON: Take socotorine aloes ten drachms, myrrh finely powdered half an ounce, saffron and fresh jalap in powder of each a drachm; make them into a stiff ball with syrup of roses, then add a small spoonful of rectified oil of amber.

The socotorine aloes should always be preferred to the Barbadoes or plantation aloes, though the latter may be given to robust strong horses; but even then should always be preferred with the salt or cream of tartar, which, by opening its parts, prevents its adhesion to the coats of the stomach and bowels; from whence horrid gripings, and even death itself, has often ensued. This caution is well worth remarking, as many horses have lost their lives through a neglect of it.

Half an ounce of Castile soap may be added to the above when given to a horse of a gross constitution; and for strong horses the proportions may be increased. When mercurial physic is intended, give two drachms of calomel over night, mixed up with half an ounce of diapente and a little honey, and the purging ball the next morning.

The following is a very gentle purge, when it can be afforded, particularly to fine delicate horses; and, if prepared with the Indian rhubarb, will not be expensive.

Take of the finest socotorine aloes one ounce; rhubarb powdered, half an ounce or six drachms; ginger, grated, one drachm: and make it into a ball with syrup of roses.

The following purging drink may also be given with success: Take senna, two ounces; infuse it in a pint of boiling water two hours, with three drachms of salt of tartar: pour off, and dissolve in it four ounces of GLAUBER's salts, and two or three of cream of tartar.

This last physic may be quickened or made stronger, by adding an ounce more senna, or two drachms of jalap. It is cooling, easy, and quick in its operation; and greatly preferable in all inflammatory cases to any other purge, as it passes into the blood, and operates also by urine.

If after purging the horse loses his appetite, it is necessary to give him a warm stomach drink made of an infusion of chamomile flowers, anniseeds, and saffron: or the cordial ball may be given for that purpose. If the continuance of the purging be too long, give an ounce of diascordium in an *English* pint of port wine; and repeat it once in twelve hours, if the purging continues. Plenty of gum-arabic water should also be given; and, in case of violent gripes, fat broth clysters or tripe liquor should be often thrown up with a hundred drops of laudanum in each.

The following is the method of preparing the ARABIC SOLUTION.

Take of gum-arabic and tragacanth of each four ounces; juniper-berries and carraway-seeds of each an ounce; cloves bruised half an ounce: simmer it gently in a gallon of water till the gums are dissolved; give a quart at a time in half a pail of water; but, if he will not take it freely this way, give it him in a horn often.

When a purge does not work, but makes the horse swell, and refuse his food and water, which is sometimes the effect of bad drugs or catching cold, warm diuretics are the only remedy; of which I would recommend the following:

Take a pint of white wine, one ounce of nitre, mix a drachm of camphor with it, dissolved in a little rectified spirit of wine; afterwards add two drachms of oil of juniper, and the same quantity of unrectified oil of amber, and four ounces of honey, or syrup of marsh-mallows.

If much physic cause the horse to swell, do not suffer him to be rode about till he has some vent; but rather lead him gently in hand till some evacuation is obtained.

As it is observed that horses more willingly take sweet and palatable things than those that are bitter and of an ill taste, care should be taken that the latter be given in balls, and that their drinks be always contrived to be as little nauseous as possible, and sweetened either with honey or liquorice. Those that are prepared with gross powders are by no means so agreeable to a horse as those made by infusion; as the former often clam the mouth, irritate the membranes about the palate and throat, and frequently occasion the cough they are intended to prevent.

The shape of a ball should be oval, and not larger than a pullet's egg: when the dose is larger, it should be divided into two; and they should be dipped in oil, that they may the easier slip down.

Mr. TAPLIN recommends the following cathartic balls, the ingredients of which are differently proportioned so as to suit different circumstances in respect to constitution, size, age, and strength.

I. Socotorine aloes one ounce; India rhubarb two drachms; jalap and cream of tartar each one drachm; ginger, in powder, two scruples; essential oil of cloves and anniseed, each twenty drops; syrup of buckthorn a sufficient quantity to form the balls.

II. Socotorine aloes ten drachms; rhubarb, jalap, and ginger, each two drachms; cream of tartar three drachms, and syrup of buckthorn sufficient to form the ball.

III. Barbadoes aloes, nine drachms; jalap, Castile-soap, and cream of tartar, of each two drachms; diagrydium, and ginger in powder, each a drachm; syrup of buckthorn to make the ball.

IV. Barbadoes aloes, ten drachms; Castile soap and jalap in powder, of each half an ounce; cream of tartar and ginger, each two drachms; oil of anniseed, forty drops; of cloves, twenty drops; which form into a ball with syrup of roses or buckthorn.

CLYSTERS

Are of greater importance in relieving horses from many

many acute complaints than is generally imagined; and it were to be wished, that, in place of the more expensive cordial drenches, &c. which are but too frequently given in most of these cases, a simple clyster of warm water, or thin water-gruel, were substituted in their stead; the latter proving of great benefit, whilst the former too frequently prove hurtful.

Clysters serve not only to evacuate the contents of the intestines, but also to convey very powerful medicines into the system, when perhaps it is not practicable to do it by the mouth: for, although they are only conveyed into the larger intestines, and perhaps hardly penetrate into the smaller, still they are extremely useful, by fomenting as it were the latter, and at the same time by softening the hardened excrement that is accumulated in the former, and rendering it so soft as to be expelled out of the body, by which flatulencies or other offending matters that may be pent up in them are likewise expelled. Besides, by their warmness and relaxing powers, they act as a fomentation to the bowels; hence they may be of considerable service in removing spasmodic constrictions in the bowels, carrying off flatulencies, and in preventing inflammation in the intestines, &c. or, by conveying opiates to the parts affected, give speedy relief in cholics, &c. &c.

The use of emollient clysters in fevers is considerable. They act by revulsion, and relieve the head when too much affected. Besides, by throwing in a quantity of diluting liquor into the intestines, it not only relaxes and cleanses them, but may be said to cool the body in general; and at the same time a considerable portion of the liquid is absorbed and conveyed into the mass of blood, by which means it is diluted; and, in particular complaints in the bowels, clysters give almost immediate relief, as the remedies, when judiciously prescribed, pass immediately to the parts affected, with little or no alteration from the powers of the body.

Nor is the use of clysters confined to medicines only: food and nourishment may be conveyed into the system this way, when a horse is unable to swallow any thing by the mouth. Horses have frequently been supported for several days together by nourishing clysters, made of thick water-gruel, during violent inflammations or tumours in the throat, till such time as they have been discussed or suppurated. Nor will these effects appear strange to those who have an acquaintance with the anatomical structure of the body. For the sake of those who have not, it may be just sufficient to observe, that certain vessels called lacteals, whose mouths open into the inner cavity of the intestines, absorb or drink up the chyle or nourishment that is produced from the food, and convey it into the mass of blood. The same process takes place when nourishment is conveyed into the intestines by the anus or fundament; only the food requires to be so far prepared, broken down, and diluted with water, as to render it fit to be absorbed by the vessels before-mentioned. It ought always to be observed, in administering clysters, that the contents of the clyster be neither too hot nor too cold, as either of these extremes will surprize the horse, and cause him to eject or throw it out before it has had time to have any effect.—Previous to introducing the clyster-pipe, the operator, after anointing his hand and arm with oil, butter, or hog's lard, observing at the same time that the nails of his fingers are short, may introduce it into the rectum, and draw out the hardened dung gradually. In farriery this operation is termed back-racking; and becomes the more necessary, as it frequently happens that great quantities of hardened dung are in some cases collected in the rectum, which the horse cannot void easily without this kind of assistance.

Clysters should be extremely simple in composition: they will be easily prepared on that account, and as easily administered, provided the operator is furnished with a suitable instrument for the purpose. The generality of clyster-pipes that are used are by far too small and too short: although it may appear a kind of paradox, yet it is a fact, that a clyster-pipe of a larger size than the ordinary ones, and of a proper thickness, is much easier introduced into the anus than one that is considerably smaller. It is likewise obvious, that, when the pipe is too short, it renders clysters of no use, because it cannot convey them so far up into the intestines as is necessary for them to be retained. A small short pipe, of six or eight inches long, is not capable of conveying the injection to the end of the rectum, which is about sixteen or eighteen inches long in a horse of a middling size.

But farther, after the hardened dung is taken out of the rectum by the operation above-mentioned, the bladder being distended and full of urine, it cannot exert its contracting power immediately, so as to expel its contents; it therefore passes up to the empty rectum, and forms as it were a kind of tumour in it. If the pipe is too short, it cannot reach beyond this rising in the rectum, which forms as it were a declivity back towards the anus; and hence the liquor regurgitates or flows back at the anus as soon as it is discharged from the pipe.

Another very material objection to these instruments is the smallness of the bag or bladder, which is generally proportioned to that of the pipe, and seldom contains one quart of liquid; from which circumstance, very little benefit can be derived from the use of them in such large intestines as those of a horse. Dr. Bracken observes, that "the colon of a horse seems to be three guts; and, by reason of the two necks of about half a yard each, is drawn up into many cells or purses by means of two ligaments, one of which runs along the upper, and the other the under, side of it, which, with the assistance of a valve or flap at its beginning, hinder the excrements either from returning back into the small guts, or falling too soon downwards, before the chyle or milky substance prepared from the food be sent into its proper vessels. And, indeed, the cæcum or blind gut, which is the first of the three larger guts, seems to be so contrived in the manner of a valve, to hinder the aliment and chyle from passing too soon into the colon; for, if the aliment and chyle were not in some measure hindered in their passage through these large guts, the body could not be sufficiently supplied with nourishment. The first of these colons is about a yard and a half in length, the second about a yard, and the third, or that part which joins the rectum or arse-

gut,

gut, near six yards in length; so that the colon of a horse fourteen hands high may be said to be nearly eight yards and a half long; and, from it, along the rectum or straight gut to the anus, where the excrements are discharged, is not above half a yard; so that it is plain, clysters operate mostly in the colon; though I must say they are given in too small quantities; for what signifies two quarts of liquor in a gut nine yards long, and four or five inches diameter, in a natural state: but, in the cholic, it is so distended with flatulencies, that its diameter exceeds seven or eight inches, as I have frequently observed in those dying of that distemper."

Large syringes are frequently used for the purpose of giving clysters: but, of all the instruments ever invented, they seem the most improper for horses. The sharpness and smallness of their pipes are not only a material objection against the use of them, but they are apt to tear and wound the gut; for, if a horse should prove restless, either from pain, as in cases of the gripes, or from viciousness, the syringe and pipe being quite inflexible, in the struggle to throw up the injection the gut may be wounded or hurt, by which a discharge of blood and other bad consequences may follow. But, although there was not the least chance of their hurting the horse or wounding the gut, yet the force with which they throw up the liquor always causes a surprize, of course a resistance, attended with a vigorous effort to throw it out; which indeed frequently happens before the pipe of the syringe is withdrawn, and frequently upon the operator.

The most proper instrument for giving of clysters, is a simple bag or ox-bladder, which will hold two or three quarts, tied to the end of a wooden pipe about fourteen or fifteen inches long, one inch and a half diameter where the bag is tied, and of a gradual taper to the extremity, where the thickness should suddenly increase, and be rounded off at the point, and be made as smooth as possible; the perforation or hole through the pipe may be made sufficiently large, so as to admit the end of a common funnel, for pouring in the liquor into the bag. By the flexibility of the bladder at the end of this instrument, no danger can happen to the horse; the clyster is conveyed so far up into the intestines that it will be retained; it causes no surprize, provided the liquor be neither too hot nor too cold, but milk-warm, as no other force is required to throw it up than the holding the bag a little higher than the level of the pipe; by which means the liquor flows gently into the gut, without any surprize to the horse. After using the bag, it may be blown full of wind, a cork put into the pipe, and hung up in some dry place to prevent it from rotting; by which means it will last a considerable time.

Clysters are distinguished by different names, which denote the quality of the ingredients of which they are composed, as emollient, laxative, diuretic, anodyne, &c. As the more general use of clysters, in the practice of farriery, would be attended with the most salutary effects, especially in acute diseases, where the speediest assistance is necessary, I shall here subjoin some forms of recipes for composing them, together with the cases wherein they may be advantageously administered.

Emollient Clyster.

Two or three quarts of thin water-gruel, sallad-oil and coarse sugar, of each six ounces. Dissolve the sugar in the water-gruel, then add the sallad-oil. Give it milk-warm.

Laxative Clyster.

Two or three quarts of thin water-gruel, Glauber's salts eight ounces, sallad-oil six ounces. When Glauber's salts are not at hand, common salts may be used instead thereof.

There may be a great variety of recipes added for making clysters, composed of the infusion of different herbs, seeds, &c. but the above ingredients are always easily got, and they will be found to answer all the intentions required under this head, which is to soften the hardened excrements, to lubricate the intestines, and, by exciting a gentle stimulus, promote a free discharge of their contents; which, when once obtained, seldom fails of giving relief in inflammatory cases, spasms, &c.

Purging Clysters.

Infuse two quarts of senna in two quarts of boiling water; strain it off; then add of syrup of buckthorn and common oil, each four ounces. This clyster will operate more briskly than the former, and on that account may be preferred when an immediate or speedy discharge is necessary.

Anodyne Clyster.

The jelly of starch, or infusion of linseed, one pint; liquid laudanum one ounce, or about two table-spoonfuls.

When there is reason to apprehend inflammation in the bowels, opium may be given in the place of laudanum, from twenty to thirty grains, in proportion to the urgency of the symptoms; it ought to be well triturated or rubbed in a mortar, with a little of the liquid, till it has thoroughly dissolved. The smallness of the quantity of liquid here recommended, gives it the better chance of being the longer retained, as the good effects to be derived from the opium depend entirely on this circumstance. This clyster is proper to be given in violent gripings, attended with purging, in order to blunt the sharpness of the corroding humours; and to allay the pain usually attending in such cases. The starch will, in some measure, supply the deficiency of the natural mucus or covering of the intestines, which has been carried off by violent purging. It may be repeated if the symptoms continue violent, only diminishing the quantity of laudanum, or of the opium.

Nourishing Clyster.

Three quarts of thick water gruel. When this kind of clysters is necessary, they may be given four or five times in the day, according as circumstances may require; they are of much service in cases where the horse cannot eat sufficiently to support him, or swallow any thing, from inflammation of the throat, jaws, &c. or in convulsions, attended with a locked jaw, &c.

Diuretic Clyster.

Two ounces of Venice-turpentine and one ounce of Castile-soap. Dissolve the soap in two quarts of warm water; then add the turpentine, after it has been well beat up with the yolks of two eggs.

This diuretic clyster is of great use in the stranguary, and obstructions in the urinary passages; and, as it is immediately applied to the parts affected, it seldom fails of giving relief, and has a much better effect when prescribed in this manner than when given by the mouth: by this last way it mixes with the whole mass of fluids, and may lose a considerable portion of its diuretic quality before it reaches the kidneys; but, by being administered in the form of a clyster, it is readily absorbed by the neighbouring vessels, and promotes a free discharge of urine.

For other forms of clysters, *see* Clyster.

There are a variety of cases where clysters may be administered with great success, besides those already hinted at; as in inflammatory fevers, spasmodic constrictions, and cholicy complaints in the bowels; in recent coughs, apoplexy, convulsions, paralytic complaints, or swellings of the belly, whether from air pent up in the bowels or from hardened excrements; in cases where horses are troubled with worms, as the ascarides which lodge in the lower part of the intestines, or when bot-worms are observed sticking in the anus, or voided with the dung; in very costive habits, before laxative or opening medicines are given by the mouth; in wounds which penetrate deep into the muscular or tendinous parts, or in the belly, &c. in inflammations in the eyes, or when the head seems particularly affected; in inflammatory swellings on any part of the body; when a horse cannot swallow his food, &c. whether it proceeds from spasm in the muscles of the throat, inflammations, or swellings. Clysters composed of mucilaginous substances, as starch, linseed, &c. are of great benefit in violent diarrhœas or looseness, whether it proceeds from a natural discharge, or from too strong purging medicines.

Clysters should be often repeated, till such time as the disorder for which they are given is either removed or greatly abated. This injunction may be the more readily complied with, as the administering clysters to horses is not attended either with much trouble or disturbance to them.

Colds.

The reader is referred to the article Colds.

Rowels.

Rowels for horses answer the same purpose as issues in the human body. To introduce them observe the following Directions.

Make an incision through the skin, about three-eighths of an inch long, and separate the skin from the flesh with the finger, or with a blunt horn, all round the orifice, as far as the finger will easily reach; then introduce a piece of leather, very thin, shaped round, about the size of a crown-piece, having a large round hole in the middle of it. Previous to introducing the leather, it should be covered with lint or tow, and dipped into some digestive ointment; a pledget of tow, dipped in the same ointment, should likewise be put into the orifice, in order to keep out the cold air: the parts around it soon swell, which is followed with a plentiful discharge, from the orifice, of yellow serum or lymph; and, in two or three days at most, the discharge turns into thick gross white matter: the rowel is then said to suppurate.

The artificial vents act by revulsion or derivation, and hence they become of great use in many cases, as they empty the surrounding vessels by a regular slow discharge of its contents, and are even of great service when there is a redundancy or fulness of humours in general, which may require a gradual discharge, in preference to greater evacuations by purging medicines, &c. Rowels should be placed, especially in some particular cases, as near the affected part as possible; and, at all times, they ought to have a depending orifice, in order to admit of a free discharge of the matter that is contained in them.

The belly, inside of the thighs, the breast, and outside of the shoulders and hips, are the parts where they ought to be inserted, and where they are found to answer best; they are sometimes, but very injudiciously, put in between the jaw-bones, under the root of the tongue, where they never come to a proper suppuration, on account of the constant motion of the parts in eating, &c. neither do they answer any good purpose from being placed in that situation. In some disorders it is found necessary to put in several of them at once, in order to make a sudden revulsion from the parts affected; but this should be determined by the horse's age, strength, and circumstances that require them.

But, though rowels are found very beneficial in some cases, yet, like a number of other operations common to horses, they sometimes, by the improper use of them, become hurtful to the constitution; and, in some diseases, they frequently, instead of suppurating, turn gangrenous. Thus in violent fevers, where they are very improperly applied, they never suppurate properly: whether this proceeds from the quickness of the pulse, together with the violent rapidity with which the fluids in general are then carried through the vessels, or from the violent agitation in which the whole system is thrown, it is difficult to determine; but experience confirms the observation, when properly attended to. In such cases, the surrounding parts where the rowel is placed seldom or never swell, as in the ordinary course, when they suppurate properly, but appear dry, or much in the same state as when they were put in; there is little or no discharge from the orifice; and the little that does come is thin, ichorous, and bloody. In such cases, they ought to be taken out immediately, and the parts well fomented with a strong infusion of chamomile, or an emollient poultice applied, if it can be properly fixed, and frequently repeated; at intervals the parts ought to be bathed with ardent spirits, as that of wine, turpentine, &c. covering the parts from the external air; and, provided there is no fever at the time, two or three ounces of Peruvian bark may be given through the day, either made into balls or given in liquid; and this continue till the threatening symptoms are removed.

Rowels are of great use in carrying off rheums or defluxions

fluxions from the eyes; in great swellings of the glands, &c. about the throat and jaws, which threaten a suffocation; or when the head seems particularly affected, as in the vertigo or staggers, apoplexy, &c. &c. in recent lameness; swellings of the legs and heels, attended with a discharge of thin ichorous matter, &c. in large and sudden swellings in any part of the body; or when extravasations of the fluids have taken place, from blows, bruises, &c. or when a horse has had a severe fall, &c. and in many other cases, which the practitioner will remember.

SETONS.

Setons are of great use in carrying off matter from deep-seated tumours or abscesses in different parts of the body. They ought at all times to be used in preference to making deep incisions into the muscular parts, which not only disfigure horses, but such deep incisions are very difficult to heal up in them, on account of the situation of some of these tumours, and the horizontal position of the body, which is unfavourable in many cases for procuring a depending opening in order to carry off the matter, as in tumours in the back, withers, and upper part of the neck immediately behind the ears, which are very common. Besides the horizontal position of the body, the natural restlessness and impatience of horses renders it impracticable to fix proper bandages on those elevated parts; the situation of them, likewise, will not admit of proper dressings being fixed on them with any degree of certainty of their remaining for any length of time; by which means the openings made into such tumours or abscesses are frequently left bare, and exposed to the cold air, &c. hence such openings degenerate into very foul ulcers, and produce a great deal of proud flesh, and which require to be repeatedly cut away with the knife, as the strongest caustics that can be applied are not sufficient to keep it under.

Setons are introduced by long, thin, sharp-pointed, instruments or needles, shaped like a dart at the point, and having at the other extremity an eye to receive the end of the cord, which is to be left in the tumour. The size of the instrument may be determined by that of the tumour, and the thickness of the cord which is to follow it, and which at all times ought to be smaller than the perforation made by the point of the needle. Every practitioner in farriery should always have a number of these needles by him, of different sizes, that is, from six to fourteen or fifteen inches long, a little bended on the flat or under side. To apply them in cases of tumours or abscesses, you must observe the following method.

When the matter is found to fluctuate in the tumour, the needle, armed with a cord at the end, is to be introduced at the upper end of it, and the sharp point of the instrument directed to, and brought out at the under or lowermost part of the tumour, including the whole length of it; or, if needful, through the sound muscular flesh on the under part, in order to make a depending orifice for the matter to run freely off; the cord should be dipped in some digestive ointment, and then tied together at both ends with a thread, in order to prevent its slipping out. But if, from the length of the perforation, the cord should not admit of being tied together at the ends, a small button of wood, or some such substance, may be fixed at each end, only, from this circumstance, the cord will require, when shifted, occasionally to be drawn upwards and downwards; whereas, when the ends of it are tied together, it forms a circle, and may always be shifted downwards to the lower orifice. When the matter in the tumour appears to be wholly discharged or dried up, and no thickness appearing but where the cord is, it may then be cut out, and the orifices suffered to heal up.

When the needle for introducing the seton is to pass near to any large blood-vessels or nerves, in order to prevent the chance of their being wounded, it may be concealed in a canula or case, open at both ends; and, after an opening is made at the upper part of the tumour, sufficient to admit the needle with its case, it may then be directed with safety to pass the blood-vessels, &c. and may then be pushed forward through the canula, and the opposite side of the tumour, and, having all the common teguments to perforate, danger will be avoided.

The medicines, and directions to use them for various disorders, being given under the heads of the several disorders throughout this work, we shall here only give the few following.

Tobacco infusion. Infuse two ounces of the strongest tobacco, twelve hours, in half a pint of camphorated spirits and brandy, equal quantities, stirring as often as possible. Touch with the infusion, or apply pledgets of the tobacco.

Camphorated elder ointment. Into half a pound of ointment of elder, stir and mix well six drachms of camphor finely powdered, moisten, if needful, with spirits: add, when desired more cooling and repellent, three drachms of sugar of lead in very fine powder.

Soap liniment. Mix soft soap, a small quantity of Venice turpentine, fuller's earth, and vinegar or brandy; if necessary, add a small quantity of linseed oil: spread on tow.

Cooling repellent white ointment. White wax six ounces, melt it in three pounds of oil olive, add by degrees one pound of ceruse finely powdered: if desired more repellent, add one ounce of sugar of lead; rub the sugar of lead, well powdered, in a small quantity of the oil first, then mix.

Ointment for the pasterns of horses liable to crack in exercise: mix hog's-lard and linseed oil, two parts lard to one of oil; stir well into the mass, French brandy, after the rate of a gill to half a pound. Touch the cracks frequently with brandy.

Legs swelled of young horses, from long standing, or work. Bathe with distilled vinegar, to a quart of which may be added two ounces of camphorated spirits. Or, a bath for the legs of cold spring water, continued ten or twelve minutes: rub thoroughly dry with a linen cloth, so gently as to cause no heat.

Emollient and discutient fotus or bath. Boil wormwood, chamomile flowers, mallows, bay leaves, tansy, and rosemary, of each six handfuls, in a gallon of water, slowly, to three quarts, mix the three quarts with water in a strong tub, in which bath the horse's two legs

legs may be placed as warm as is convenient, and there kept as long as the heat continues. Warm it afresh for the hind-legs.

Pains in the shanks, and shins, of racers. Poppies bruised, four ounces; lavender, elder-flowers, and chamomile, each three or four handfuls; boil in six pints of water, strain off three pints, and add three ounces of camphorated spirits: use the mixture warm, twice a day, with sponge or flannel, to the legs and joints, when the horse comes in from exercise, the last thing after dressing.

Saturnine strengthening embrocation. Best distilled vinegar, one pint; aqua vegeto made with one pint of water, and three tea spoonfuls of GOULARD's Extract of Saturn, two ounces of oil of turpentine: mix. A quantity of this should be kept close corked for stable use, as it improves by keeping: its strength may be varied by the increase or diminution of GOULARD's extract; but I have ever found the present form sufficiently strong, in this intention.

Running thrush: when this has become inveterate, fetid, and discharges much, deterge and heal it with either of the following: Ægyptiacum, half an ounce: brandy and distilled vinegar of each one ounce; tincture of myrrh-aloes one ounce, mix. Bathe twice a day, charged with tow dipped therein. OR, quench unslacked lime in vinegar, strain, and use the liquid hot. OR, distilled vinegar, oak bark finely powdered, and whites of eggs. Should the discharge stop very suddenly, purge, or give alteratives; indeed, if it be a natural thrush, no astringents can be safely used, without concomitant internals of the alterant or purgative class, for fear of a metastasis, or translation of the humour to some other part; a much worse consequence than the natural defect.

As the complaints in the eyes of a horse come frequently under the care of the farrier, we insert the following instructions.

DISEASES of the EYES.

The cases that most frequently occur, requiring medical aid, or admitting of cure, are generally the effects either of colds, or of blows, bites, or other external injuries. In those proceeding immediately from cold, there is perceived an inflammation upon the globe of the eye, and internal surrounding parts, as the edges of the eye-lids, &c. instead of its former transparency, the eye has a thick cloudy appearance upon its outer covering, and is constantly discharging an acrid serum, which in a short time almost excoriates the part in its passage. The horse drops his ears, becomes dull and sluggish, is frequently shaking his head, as if to shake off the ears, and in every action discovers pain and disquietude. In this case, after bleeding, the treatment prescribed in the article COLDS must be adopted and persevered in; and to cool the parts, and allay the irritation occasioned by the scalding serum, let the eyes and surrounding parts be gently washed twice or thrice every day with a sponge or tow impregnated with the following solution:

Sugar of lead one drachm, white vitriol two scruples, spring water half a pint, brandy or camphorated spirits one ounce, or two table spooonfuls. If the inflammation should not seem likely to abate, but to wear a threatening appearance, the following diuretic medicine must be administered: Castile soap twelve ounces, yellow rosin and nitre (in powder) each eight ounces, powdered camphire one ounce, and oil of juniper six drachms; mixed with a sufficient quantity of syrup or honey. The mass is to be divided into twelve balls, rolled up in liquorice or anniseed powder; one of which is to be given every morning, using also gentle work or moderate exercise.

The effects arising from blows or bites form different appearances, according to the severity of the injury sustained. Should inflammation and swelling proceed from either case, bleeding will be necessary without delay, and may be repeated at proper intervals till the symptoms appear to abate; and let the parts be plentifully embrocated four times a day with the following preparation of GOULARD's cerate:

Extract of saturn, three drachms; camphorated spirits, one ounce; river or pond water, one pint. The extracts to be first mixed with the spirits, then the water to be added.

If a large swelling, laceration, or wound, attends, after washing with the above, apply a warm poultice of bread, milk, and a little of the lotion, softened with a small portion of hog's lard or olive-oil. In cases of less danger, or in remote situations were medicines are not to be procured, the following may be used as a substitute.

Best white-wine vinegar half a pint, spring-water a quarter of a pint, and best brandy a wine glass, or half a gill.

As to the gutta serena, cataract, film, &c. these are cases in which relief is very seldom obtained.

The gutta serena is a partial or universal loss of sight, where no palpable defect or fault appears in the eye, except that the pupil is a little more enlarged or contracted. The appearances of this blemish are various, as well as the causes and effects, some of its subjects being totally blind, and others barely enabled to distinguish between light and darkness. The signs are blackness of the pupil, an alteration of the size of the eye, and its not contracting or dilating upon a sudden exposure to any degree of light. In order to the cure, it is necessary to attend to the cause, and to apply such remedies as that may indicate: though in truth it is a disorder in which, from whatever cause originating, no great expectation can be formed from medicine, either internally or externally, more particularly from the former, the seat of disease being so far out of the reach of medical action. If the defect should be owing to a contraction of or compression upon the optic nerve, very little can be done with any expectation of success; and much less if it arises from a palsy of that or any other neighbouring part.

A cataract is a defect in the crystalline humour of the eye, which, becoming opaque, prevents the admission of those rays upon the retina that constitute vision. The disorder called moon-eyes are only cataracts forming. These in general make their appearance when a horse is turned five coming six; and at which time one eye becomes clouded, the eye-lid being swell-

ed, and very often shut up; and a thin water generally runs from the diseased eye down the cheek, so sharp as sometimes to excoriate the skin: the veins of the temple, under the eye, and along the nose, are turgid and full: though it sometimes happens that the eyes run but little. This disorder comes and goes till the cataract is ripe; then all pain and running disappear, and the horse becomes totally blind, which is generally in about two years. During this time some horses have more frequent returns than others; which continue in some a week or more, in others three or four; returning once in two or three months, and they are seldom so long as five without a relapse. There is another kind of moon-blindness, which is also the forerunner of cataracts, where no humour or weeping attends. The eye is never shut up or closed here, but will now and then look thick and troubled, at which time the horse sees nothing distinctly; when the eyes appear sunk and perishing, the cataracts are longer in coming to maturity; and it is not unusual, in this case, for one eye to escape. These cases generally end in blindness of one, if not of both eyes. The most promising signs of recovery are when the attack comes more seldom, and their continuance grows shorter, and that they leave the corner clear and transparent, and the globe plump and full.

In all blemishes or defects, where a thickening of some one of the coats, membranes, or humours, of the eye, has formed an appearance of a cataract or film, it has been an established custom among most farriers to bestow a plentiful application of corrosive powders, unguents, and solutions, for the purpose of obliteration; without reflecting (as Mr. TAPLIN observes) upon the absurdity of endeavouring to destroy by corrosion what is absolutely separated from the surface by a variety of membraneous coverings, according to the distinct seat of disease; with which it is impossible to bring the intended remedy into contact, without first destroying the intervening or surrounding parts by which the inner delicate structure is so numerously guarded. But, in all disorders of this sort, whether moon-eyes, or confirmed cataracts with a weeping, general evacuations with internal alteratives can only take place. Indeed the attempts to cure cataracts have hitherto generally produced only a palliation of the symptoms, and sometimes have proved entirely destructive; yet early care, it is said, has in some instances proved successful. To this end rowelling is prescribed, with bleeding at proper intervals, except where the eyes appear sunk and perishing. It is also directed, during the violence of the symptoms, to observe a cooling treatment; also to

Give the horse two ounces of nitre every day, mixed into a ball with honey; and bathe the parts above the eye with verjuice or vinegar wherein rose-leaves are infused, to four ounces of which half a drachm of sugar of lead may be added. The swelling on the lid may afterwards be bathed with a sponge dipped in equal parts of lime and Hungary water mixed together; and the following cooling physic should be given every fourth day, till the eye becomes clear: lenitive electuary and cream of tartar, of each four ounces; GLAUBER'S salts, three ounces; syrup of buckthorn, two ounces.

When the weeping is by these means removed, the alterative powders should be given every day, till two or three pounds are taken, and after an interval of three months the same course should be repeated. This method, it is affirmed, has often been attended with good success, where the eyes have been full, and no way perished. The haws is a swelling and sponginess that grows in the inner corner of the eyes, so large sometimes as to cover a part of the eye. The operation here is easily performed, by cutting part of it away; but the farriers are apt to cut away too much; the wound may be dressed with honey of roses, and, if a fungus or spongy flesh arises, it should be sprinkled with burnt alum, or touched with blue vitriol.

The following prescriptions are translated from the works of the most celebrated practitioners of *Germany*, *Holland*, *France*, *Italy*, &c. together with those used by the most distinguished of our nation.

For a Horse that has disordered Sight. Take spring and rain water, of each an equal quantity; filter the former through white-brown paper; rasp in a little Castile soap and double-refined sugar; afterwards filter it again through another paper; use this with a soft feather two or three times a day till the eye becomes clear.

Pills to purge the Brain of a Horse that has sore Eyes. Take agaric, common aloes, senna-leaves, turbith-roots, gentian, and ginger, of each three drachms, all in powder; and with unsalted butter, or syrup of buckthorn, make it into a sufficient number of balls, to be rolled in liquorice powder, for one dose; give after it a few glasses of wine, to make him swallow it the better; he should fast six or seven hours before and after taking the dose.

A Powder to dissipate a Web. Take garden-thyme or wild-thyme, dry one or both of these in the shade, and make a fine powder; which use with a feather to the horse's eye three or four times a-day.—Remember never to blow this powder into a horse's eye.

Another Remedy for sore Eyes. Take celandine-juice, two ounces; white vitriol and Florentine orris-root, powdered, each half an ounce; put the juice and powder into a pint of plantain or spring water; beat it all well together till the water is in a froth; then let it settle all night, and filter it through white-brown paper; to be used with a feather.

Another Powder for Films or Specks. Take crystal or glass, levigated very fine, to which add an equal quantity of sugar-candy; sift it well for use.

Another Way to remove a Film. Take a piece of lean hung or salt beef, dry it in an oven so that it may be reduced to powder; do the like to a stick of liquorice; take an equal quantity of each, and a third part of burnt roach alum; mix them well, and blow with a quill each morning about a pennyweight into the horse's eye, drawing the lids together, to keep in the powder; and, in so doing every other day for five or six days together, the film will vanish. This will likewise remove the pin and web.

Another. Wash the eye with wine; then lift up the

the eye-lid, and gently ſtroke the eye with wheat-flour on your thumb. Common ſalt, or ſalt of lead, beaten fine, and put into the eye, is likewiſe proper; or you may waſh the horſe's eye with your ſpittle in the morning faſting, having firſt put a little ſalt in your mouth. A very effectual way is to beat ſal-ammoniac and put into the eye, repeating it every day till the film is gone.

Another, very good. Take ground-ivy, four handfuls; common ſalt, ſugar-candy, white-copperas calcined, each an ounce; ſix new-laid eggs, boiled hard, and the yolks to be taken away; after which beat ſhells and all well together in a marble mortar, with a pint of white-wine; let them infuſe twelve hours, and filter it through paper for uſe.

An Eye-powder. Take common ſlate, calcined; ſnail-ſhells, kali, or ſea-wort, each two ounces; powder all theſe and ſift them through a lawn ſieve; uſe this as before deſcribed, and continue it till the cure is finiſhed.

A cooling Eye-water. Take of ſugar of lead two drachms, white vitriol half an ounce; diſſolve theſe in a pint of ſpring-water; to which may occaſionally be added when the rheum is very large, and inflammation removed, half an ounce of powder of tutty.

A repelling Eye-water. Take two drachms of roſe-buds, infuſe them in half a pint of boiling water; when cold pour off the infuſion, and add to it twenty-five grains of ſugar of lead. With theſe waters let the eye and eye-lid be bathed three or four times a-day, with a clean ſponge that has been dipped therein.

A white Eye-water. Take roach-alum, and white-vitriol, each one ounce; burn them to a white maſs, upon a clean fire-ſhovel; when this is done, powder them and mix them with three pints of boiling water; to this you may add one ounce of lapis calaminaris finely powdered. You may dreſs wounds in the eye with honey of roſes alone, or with a little ſugar of lead mixed with it, and about an eighth part of tincture of myrrh, or the following ointment.

Take an ounce of ointment of tutty, two drachms of honey of roſes, and one ſcruple of burnt white-vitriol; mix theſe cold, and apply them a little warmed with a feather between the eye-lids, morning and evening for ſome time, and waſh his eye at noon with a little warmed milk and a ſponge.

If the horſe is fleſhy, and of a groſs conſtitution, bleeding ſhould be repeated; his diet ſhould be ſcalded bran, avoiding beans, oats, or any thing hard to chew, as this will affect his eye, eſpecially if it is much inflamed; this obſerve ſome days.

Moon-eyed horſes are ſubject to cataracts. When the eye is never ſhut up, or cloſed, and when the eyes appear ſunk and periſhing, it frequently happens that one will be loſt, if not both of them. The moſt promiſing ſigns of recovery are when the attacks come more ſeldom, and they leave the globe plump and full, as well as the corner clear and tranſparent.

During the violence of the ſymptoms, the cooling regimen ſhould be obſerved, and you may give him daily two ounces of nitre made into a ball with honey. The ſwelling of the lid may be bathed with a ſponge dipped in lime and Hungary-water mixed together in equal quantities.

Another Eye-water. Take of the juice of pimpernel and eyebright, of each half a pint; add to them the powder of lapis calaminaris quenched in white-wine, an ounce; as much of the powder of burnt alum; two drachms of the calcine of crab's eyes, and as much of the powdered pith of oyſters; dip a feather in theſe after well ſtirring, and rub it in the eyes.

A Remedy for blood-ſhot Eyes. Take the juice of a lemon, the crumbs of white-bread, bole-ammoniac, and a rotten apple; bruiſe them together, and make of them a cataplaſm or plaiſter: then take the powder of the roots of mallows, with that of a cruſt of brown-bread, and blow it into the eyes; then bind the plaiſter, or rather the poultice, over them; do this three or four times, and you may expect that the blood and rheum will be driven back and diſperſed; but, if it be ſo large that this will not cure it, then bleed the horſe in the temple-veins.

For a Film, Bite, or Blow, in the Eye. Take of white-copperas and verdigris, a quarter of an ounce of each; beat theſe to powder, and dry them well upon a plate or ſpatula; and after that take of it to the quantity of half a drachm; and with a quill blow it into the eye; then cloſe the horſe's eye a quarter of an hour, and after that waſh it with eyebright water; and ſo do till all your powder is waſted; and, when you perceive a brightneſs in your horſe's eye, you may conclude that the malady is baniſhed.

For other receipts, *ſee* WOUNDS, FARCY, GLANDERS, &c.

The following is a liſt of ſuch drugs as are moſt neceſſary in the cure of the various diſorders incident to the horſe, with a brief account of their medicinal virtues.

Aloes. This medicine by its balſamic, corroborative, and lenitive, virtues, abſterges and eliminates the viſcid humours, corrects ſuch as are vitiated, and, corroborating the relaxed tone of the ſtomach, removes the ſpaſms and flatulencies of the *prima via*, and is in general a very powerful and efficacious medicine.

Diaphoretic Antimony is of great ſervice in fevers, peſtilential diſorders, and alſo for all eruptions on the ſkin, as it cauſes perſpiration, and is a great cleanſer and ſweetener of the blood, &c.

Butter of Antimony is a powerful cauſtic, and cauſes an eſchar very quickly, which ſeparates the foul fleſh in a ſhort ſpace of time. It is chiefly uſed for cankered feet.

Aqua Fortis is uſed only as a menſtruum in other preparations, but its nature and quality are much the ſame with the butter of antimony. It is uſed for horſes as a cauſtic, and is of infinite ſervice in looſening a core of rotten fleſh.

Crude Antimony is an excellent alterative in the ſcabies and mange in horſes and cattle.

Alum, when melted with a proper quantity of dragon's-blood, is an excellent ſtyptic.

Anniſeed is a great promoter of the appetite, and affords

relief in phlegmatic and cold diſorders of the ſtomach and inteſtines.

Balſam of Peru. Its qualities are healing, drying, and diſcuſſing, and it is a great ſtrengthener and warmer of the nerves, and is ſerviceable in cuts or green wounds.

Balſam of Sulphur; with Oil of Turpentine, is a medicine much approved for all diſorders of the breaſt, as alſo for ulcerations and obſtructions of the urinary paſſages.

Bay-berries are the fruit of a well known aromatic oily-leaved tree; they are heating, drying, emollient, and reſolvent, and greatly provoke urine.

Benjamin is of a warming, drying, diſcuſſing, diſſolving, and purifying, nature; it reſiſts putrefaction, and is an excellent remedy againſt diſeaſes of the lungs and kidneys.

Yellow Baſilicon is an excellent ointment to incarn wounds, and held in great eſteem.

Bole-ammoniac is, in ſome degree, an aſtringent, in conſequence of which it is uſed in fluxions of humours. It is of a drying nature, and induces cicatrices on wounds.

Bearsfoot has virtues ſimilar to thoſe of black hellebore, and purges the lower belly. It is generally conſidered an infallible preſervative againſt contagious diſtempers among horſes and horned cattle.

Birthwort. The powder of this root, and its extract with ſpirit of wine, are uſed in liniments for cleanſing inveterate, ſordid, and malignant, ulcers.

Cream of Tartar. This medicine is cooling, and gently carthartic.

Calomel. Is a great ſweetener of the blood and juices, and may be given in half-ounce doſes.

Chamomile. This medicine digeſts, relaxes, mollifies, and alleviates pain; is a fine diuretic, and is chiefly uſed in the compoſition of clyſters.

Cloves are of uſe in nervous diſorders among horſes when boiled in wine or ale.

Camphor is of a ſingular efficacy in removing external inflammations, whether of the eyes or otherwiſe.

Carraway-ſeeds are one of the four hot ſeeds; they are ſtomachic.

Cardamoms aid digeſtion, expel wind, and are good in moſt diſorders incident to the head.

Cummin-ſeed is ſerviceable in healing inflammations of the kidneys. It is carminative.

Cinnamon. The quality of cinnamon is ſtimulating and corroborative.

Diapente is a compound of ſeveral ingredients; it is effectual in opening obſtructions of the inteſtines, &c.

Diaſcordium is of an aſtringent quality.

Dragon's-blood is a great drier, an aſtringent, and has a ſharp diuretic virtue.

Diagridium. Its virtues are a briſk cathartic, and a ſtrong diuretic; it is given in ſhort preparations to purge water.

Daucus-ſeed, or *Carrot-ſeed* is an excellent remedy for the ſtrangury in horſes or cattle.

Elecampane. The root of this plant is very warm, opening, and deterſive; it cleanſes the lungs from tartarous and viſcid obſtructions, and opens the urinary ducts; when compounded with brimſtone and hellebore-root, is of great ſervice in cutaneous diſorders.

Euphorbium is chiefly uſed in ſurgery for cleanſing foul ulcers, and exfoliating of carious bones.

Japan Earth is in great eſtimation for ſtopping fluxes of the belly, and is good in catarrhs.

Egyptiacum is an ointment that is applied with ſucceſs to cleanſe foul ulcers, and to keep down fungous fleſh.

Fenugreek-ſeeds are ſoftening, relaxing, and healing, when internally applied; and, when applied to tumours, they ripen, diſcuſs, and digeſt.

Frankincenſe, or *Olibanum.* Applied outwardly, it diſcuſſes catarrhs, incarns hollow ulcers, and brings them to a cicatrix; it conglutinates recent wounds, is an excellent medicine for chilblains, and mitigates malignant ulcers.

Fennel. The root, ſeeds, and leaves, of this herb are good to provoke urine.

Ginger is a root that is brought from the *Weſt Indies;* it is of a very hot and penetrating nature, and, when grated and mixed with any kind of phyſic, will prevent its griping.

Gentian. The root only of this plant is uſed in medicine; it is a ſovereign antidote againſt poiſons, promotes perſpiration, and cauſes digeſtion.

Garlic-root is aperient, diſcuſſive, and provokes urine.

Gum-tragacanth, when diſſolved in any aqueous menſtruum, forms the conſiſtence of ſyrup; it is lenient, moiſtening, and corrects acrimony. About half a dozen drachms of it diſſolved in warm milk, will effectually cure horſes or cattle of ſtaling blood.

Guaiacum is a gum very efficacious in cauſing inſenſible perſpiration.

Honey is infinitely ſerviceable in all diſorders that proceed from phlegm, or a cold conſtitution; and is a great cleanſer of foul ulcers.

Hartſhorn, when calcined, is an excellent medicine among the preparations of powders for contagious diſorders in horſes and cattle; it cheers the ſpirits, and is alſo of great ſervice in violent fevers.

Hellebore. The root of this plant, applied externally, is the predominant ingredient for the cure of ſcorbutic diſorders.

Jalap-root is of itſelf ſufficiently powerful to purge and carry off all ſcirrhous humours.

Juniper-berries expel wind, remove obſtructions, and make a free paſſage for the urine.

Long-pepper promotes digeſtion and expels wind.

Liquorice. The roots, being pectoral, are of great ſervice in the cure of diſordered lungs, &c.

Quick-lime is good to dry up old ſores, &c.

Seed of Flax, or *Linſeed-oil.* The ſeeds are of cooling, ſoftening, and healing, qualities; and the oil, adminiſtered with others, is a fine balſamic medicine, and greatly mitigates the pain of rheumy coughs.

Lunar Cauſtic is an exceeding powerful cautery, and, by frequently touching foul ulcers with it, completes a cure.

Muſtard-ſeeds

Mustard-seeds attenuate viscid humours, are heating, emollient, diuretic, and moderately moistening.

Myrrh, when administered internally, attenuates, maturates, discusses, and resists putrefaction. Externally applied, it cleanses and promotes the cure of wounds and ulcers.

Mercury. White corrosive mercury consumes warts, and other obstinate callosities.

Salt of Nitre is good to remove all gross obstructions; it moistens the body, and relaxes and softens parts spasmodically contracted.

Spirit of Nitre creates appetite, provokes urine, causes perspiration.

Oil of Anniseed is given with success in purgative medicines, to prevent their griping, and also expels flatulencies in the intestines.

Oil of Castor is an excellent purge in all nervous disorders.

Oil of Turpentine, compounded with other medicines, greatly contributes in extirpating swellings and strains, and easing wounds and bruises.

Oil of Vitriol is extremely caustic.

Oil of Peter is of great service, when externally applied, to remove pains in the joints, &c. occasioned by strains.

Train Oil possesses the same qualities, though in a degree not quite so hot.

Oil of Amber, when blended with other ingredients, is a fine medicine for an embrocation; it likewise restores contracted paralytic torpid limbs.

Onions, roasted, and applied poultice-wise, soften hard tumours; and, mixed with a due proportion of salt, will cure a burn effectually.

Oxycroceum is an excellent plaister to fortify the nerves and muscles, and relieve pain.

Parsley. The roots of parsley produce the same effects as those of fennel.

Peruvian Bark is allowed to be a proper remedy for fevers.

Burgundy Pitch is used, with other ingredients, for a hot charge, or strengthening plaister.

Powder of Red Precipitate is an excellent escarotic, and much used for that purpose in basilicon, and other dressings.

Matthews's Pill is a powerful opiate.

Quicksilver requires great judgment in administering; it opens the pores, small vessels, and ducts of the glands; resolves obstructed humours in the remotest parts of the body, and performs wonders in cutaneous pustules, scabs, and other eruptions of the skin.

Rosemary is hot and drying, and therefore of use in all nervous complaints.

Rue is of service in obstructions in the urethra and bowels, and resists all kinds of poisons and malignities.

Salt of Vitriol is a medicine cleansing and very aperitive.

Saffron purges the lungs from viscid phlegm, is a good pectoral, and exhilarates the animal spirits.

Sulphur, if administered internally, repels gross humours, and purifies the blood.

Salt-petre, is a great diuretic, and therefore cleanses the urinary passages.

Sal-ammoniac is the most noble aperient, attenuant, resolvent, sternutatory, diaphoretic, sudorific, and diuretic, as it preserves all animal substances from putrefaction.

Sugar of Lead is an astringent styptic.

Salt of Wormwood helps digestion, and greatly promotes appetite.

Salt of Tartar is used in all diseases which are seated in the nerves, as palsies, apoplexies, epilepsies, &c.

Steel, prepared, is a great astringent.

Spermaceti is a fine balsamic in most inward disorders.

Syrup of Buckthorn is a violent cathartic, and carries off watery humours.

Spirit of Sal-ammoniac is useful in nervous complaints where there is pain.

Storax is a pectoral used in coughs, and disorders of the lungs, &c.

Snake-root is a valuable medicine in raising a diaphoresis, so that its warmth occasions its use in all nervous and paralytic disorders.

Tutty, prepared, dries acrimonious humours of the eyes, cures ulcers on the cornea and eyelids, and carries off fluxes of fistulous humours in the eyes.

Turmeric is chiefly used to open obstructions of the intestines, and provoke urine.

Barbadoes Tar is recommended to be given in obstinate tickling coughs; and, when applied outwardly, is of service in burns, scalds, and inflammations.

Emetic Tartar operates by stool, and is proper in all hypochondriacal melancholy.

Venice Treacle is a strong opiate.

Tincture of Castor operates effectually in a lethargy, apoplexy, epilepsy, palsy, vertigo, tremor of the limbs, defluxions on the joints, &c.

Turpentine is a detergent, and therefore of use in abscesses and ulcerations.

Roman Vitriol is an excellent styptic.

White Vitriol is good to allay the inflammations of the eyes, &c.

Vitriol of Tartar strengthens the intestines.

Verdigris keeps down fungous flesh, and is of service in drying up ulcers.

Vinegar is acid, resolvent, and refrigerating.

Wormwood creates an appetite, and helps digestion.

White of an Egg, mixed with bole-ammoniac, &c. defends and cools any part that may be strained or violently bruised.

FARRIER's POUCH, a leather bag in which they carry nippers, drivers, shoes for all sizes of feet, good sharp nails, and all that is proper for new shoeing a horse that has lost his shoe upon the road.

If you have no farrier with you, you must always in your equipage have a farrier's pouch well provided, and a groom that knows how to drive nails.

FATTENING OF HORSES: there are a multitude of things prescribed for this purpose, of which these that

that follow have by experience been found to be the best:—

1. Take elecampane, cummin-seed, tamerisks, anniseeds, of each two ounces, and a handful of groundsel; boil all these very well with three heads of garlic, cleansed and stamped, in a gallon of strong ale: strain the liquor well, and give the horse a quart of it lukewarm in a morning, and set him up hot. Do this for four or five mornings, and afterwards turn him to grass, if the weather permit, but if it does not keep him in the house; and besides the aforesaid drink, take the fine powder of elecampane, and the same quantity of cummin-seeds powdered, and every time you give him provender, sprinkle half an ounce of this powder by little and little therein, for fear he should nauseate it, until it be quite eaten up.

2. Put two spoonfuls of diapente in a pint of sweet wine, brew them together, and give it the horse for three mornings; for that will take away all infections and sickness from the inward parts: then feed him with provender, at least three times a day, *viz.* after his water in the morning, after his water in the evening, and at nine o'clock at night. And if you perceive that he does not eat his provender well, then change it to another, and let him have most of that food he loves best.

3. Let the horse blood; then put half a bushel of coarse barley meal into a pail full of water, stirring it about for a considerable time, then let it stand till it sink to the bottom; pour off the water into another pail for the horse's ordinary drink, and make him eat the meat that remains at the bottom of the pail three times a day, morning, noon, and night; but if he refuse, or seem unwilling to eat the meal alone, mix it with a little bran; the next day lessen the quantity of bran, and at last give him none at all, for it serves only to accustom him to eat the meal: or you may mix a small quantity of oats with the meal, and diminish it by degrees as before.

It is to be observed, that the barley must be ground every day as you use it, for it quickly grows sour, after which the horse will not taste it.

There are many horses which may not be fattened, by keeping them to this diet for the space of twenty days.

Barley ground after this manner purges the horse, and cools his inward parts; but the greatest efficacy lies in the water, which is impregnated with the most nourishing substance of the meal.

When you perceive your horse to thrive and grow lusty, you may take him off from his diet by degrees, giving him at first oats once, and barley-meal twice a day; then oats twice and the meal once, till the horse is perfectly weaned.

In the mean time you may give him hay, and good straw also if you please, but you must not ride him, only walk him softly about half an hour in the middle of the day.

After the horse has eaten barley-meal eight days, give him the following purgative if you find he stands in need of it:—Take an ounce of the finest aloes, and half an ounce of agaric, and roots of flower-de-lis, and of *Florence*, of each an ounce: pound all these three to powder, and mingle them with a quart of milk, warm as it comes from the cow, if it can conveniently be had, and keep the horse bridled six hours before, and six hours after the taking of it, without discontinuing his usual diet.

This purgation will operate effectually, the humours being already prepared, and the body moistened, will not occasion any disorder or heat, and the horse will visibly mend.

After the operation of the purgative is quite ceased, the horse must be kept eight days at diet as before.

If horses of value, that are full of mettle, and of a hot and dry constitution, were to be kept to this diet for a convenient space of time, once a year, it would infallibly preserve them from several distempers; and it is especially useful at the end of a campaign, or after a long journey.

If your horse loses his appetite, (as it often happens) when he begins to eat, you may tie a chewing-ball to his bitt, renewing it so often till he begin to feed heartily on the barley; for those balls not only restore lost appetite, but purify the blood, prevent diseases, and contribute to the fattening of the horse.

FAULT. *See* DEFAULT.

FAWN. A buck or doe of the first year.

FEATHER IN A HORSE'S FOREHEAD, *&c.* is nothing else but a turning of the hair, which in some resembles an ear of barley, and in others a kind of eylet-hole.

When it reaches a good way along the upper part of the neck, near the mane, it is a good mark; and if it be on each side of the neck, the mark is the better.

So likewise if there be in the forehead two or three of these eylets, separate from each other, or so joined that they form a kind of feather: or if the like mark be upon the ply of a horse's hind thigh, and upon the back part of it, near to the end of where his dock or rump reaches, it is a very good mark.

FEATHER ALSO UPON A HORSE, is a sort of natural frizzling of the hair, which in some places rises above the lying hair, and there casts a figure resembling the top of an ear of corn.

There are feathers in several places of a horse's body, and particularly between the eyes.

Many believe, that when the feather is lower than the eyes, it is a sign of a weak sight; but this remark is not always certain.

A *Roman* feather, is a feather upon a horse's neck, being a row of hair turned back and raised, which forms a mark like a back-sword near the mane.

FEEL. To feel a horse in the hand, is to observe that the will of the horse is in the hand, that he tastes the bridle, and has a good *appui* in obeying the bitt.

To feel a horse upon the haunches, is to observe that he plies or bends them, which is contrary to leaning or throwing upon the shoulders.

FEET OF HORSES. The care of the *legs* and *feet* forms a most important part of stable discipline. The *legs* must be kept perfectly dry, and so clean that not a speck of dirt be suffered to lodge in any crevice, under the knee, or fetlock, or around the coronet, and withall preserved

preſerved cool and free from ſtiffneſs and inflammation; dirt ſuffered to form a lodgement, or wet remaining upon the legs in cold weather, will fret the ſkin, and cauſe cracked heels, mallenders and ſallenders, rats-tails, crown ſcab, and ſuch a train of ſtable plagues, as may baffle the moſt vigorous efforts during a whole winter. From want of care, the beſt flat-legged horſes, whatever may be their condition, will ſoon become greaſed; but I have ſeen round, fleſhy-legged cattle, which could never be preſerved from it, by the utmoſt care of the moſt expert grooms, and which abſolutely could not be kept in the houſe at all with whole legs. The moſt ſovereign of all medical recipes is prevention.—As ſoon as the legs are perceived to become hot, the heels ſcurfy, and the hair begins to ſtare, take a tub or pail of warm ſoap-ſuds, with a piece of ſoap at hand, ſet therein the horſe's leg up to his knee, and with the fingers gently ſcratch off the ſcurf from every part, patiently bathing and ſuppling the leg and heel, as long as the water remains warm. This muſt be done all-fours, and will abate the tenſion and render the legs cool. Wipe perfectly dry with a linen cloth. At night, take the ſame ſteps with chamber-lye, in which hot iron has been quenched. Continue this as long as needful. Touch the cracks and raw places, in the interim, with French brandy, or the tobacco infuſion, or as occaſion may require with camphorated elder, or ſpermaceti oiniment, although this latter has been complained of as too ſtiffening. Linſeed oil and brandy, ſhook together till the maſs become white, ſoap liniment, and other forms to be found in the courſe of the work, may alſo be uſeful in this intention. Care ſhould be taken not to irritate, and add to the inflammation of the legs, by harſh, too long continued, or improper rubbing; and if they be tightly bandaged with linen or woollen, which every groom knows how to perform neatly, it will contribute to cleanlineſs, and the general end. Some gallopers are apt to crack the ſkin of their heels in exerciſe, in that caſe, ſupple occaſionally with ſimple ointment, but in general warm water will be a ſufficient preſervative. Pains and ſoreneſs in the ſhins and ſhank-bones are often the conſequence of exerciſe over hard ground, in very dry ſeaſons, for which I know no better palliative than frequent warm emollient fomentations.

The legs of young horſes are extremely apt to ſwell upon their firſt ſtanding in the ſtable, and particularly after a journey; not however ſo much as uſual, if they have the benefit of a looſe ſtable. Soak the legs when cold, and not in a ſtate of perſpiration, up to the knee, patiently and thoroughly in chamber-lye heated with the poker, adding a handful of ſalt, if thought proper, twice a day. Bandage with linen if neceſſary. Worked horſes, with inflamed and ſwelled legs, battered feet, windgalls on their paſterns and hocks (for in fact bog-ſpavins, or as the farriers chuſe to call them, blood-ſpavins, are nothing more than wind galls, or more properly jelly-bags) and contracted, or ſtarting ſinews, ſhould be fomented and embrocated according to the neceſſity of the caſe. In contractions of the ſinews, and hardneſs of the joints, of courſe reſtringents are forbid. Warm diſcutient fomentations are required, and the moſt efficacious method is that before recommended, of ſetting the leg into the liquid, as high as the knee. In caſe of ſtrained ſinews, cauſe the accuſtomed tenſion and inflammation to ſubſide by the uſe of the above fomentations, if poſſible, previous to the exhibition of aſtringents. Or uſe the fomentation in the morning, and the reſtringent embrocation at night, agreeable to diſcretion. Rub the ſaturnine or ſtrengthening embrocation, ſtrong or mild according to the demand, well, and for a long time, into the paſtern joints, along the back ſinews, and under the knees and hocks. It may be uſed either cold, or blood-warm, and about a tea-cup full, if ſtrong, ſuffices for a leg. Hunters, after a hard chaſe, would be infinitely benefited by ſuch treatment, the moſt ſcrupulous and minute care being previouſly had to free their legs and paſterns from thorns, and ſmall prickles, which they may have caught.

With a thorough groom, the *feet* of his horſe are objects of conſtant careful inſpection; theſe ſhould be well cleanſed beneath the ſhoe with the pecker, from all ſmall ſtones or gravel, at every return from abroad. The ſhoes muſt be examined, that their ends do not preſs into the cruſt, and that the nails be faſt; otherwiſe inſtant application muſt be made to the farrier. Horſes ought by no means to remain in old ſhoes, until the toe is worn away, or the webs become ſo thin that there is a danger of their breaking, unleſs in caſe of brittle hoofs, when it is an object to ſhoe as ſeldom as poſſible. Upon the average, good ſhoes will wear near a month. Steeling the toes is in general a uſeful practice, but leſs neceſſary when the beſt iron is made uſe of.

The feet of horſes are liable to the following complaints, *viz.*

Windgalls, improperly ſo called, are encyſted tumours, or bags filled with a gelatinous fluid or jelly, which being preſſed upon the tendons by over-weight or exertion, ſtagnates between the joints, and forms for itſelf thoſe cyſts or bags. Their ſituation upon the paſtern-joints is well known. Some horſes are very little ſubject to them, even if hard worked; others will have them before they have done any work at all. If not too large, and they feel elaſtic and diſappear on reſt, they do not render the horſe unſound; but if large, and ſoft to the touch, they become exceeding painful, and the horſe ſoon grows lame. The only radical cure is exciſion.

The *ring-bone* is a hard, or bony excreſcence, upon the coronet, which ſometimes almoſt ſurrounds the top of the hoof, occaſioned, perhaps, by the iron lock, which has faſtened a clog or fetter; it alſo may proceed from no viſible cauſe, and is then ſuppoſed to be hereditary; horſes ſuppoſed to be cured, never ſtanding ſound in work.

A quittor, or *horny quittor*, or whitlow, is alſo ſituated on the coronet, or between hair and hoof. Thoſe deeply ſeated, are no otherwiſe curable, than with the loſs of part of the hoof, whence a ſeam, or apparent partition, up above the heel, called a *falſe quarter*. In this

this latter case, the soundness of the horse can scarce ever be depended on, and he is liable to drop down suddenly on his way.

The *sand-crack* is a small cleft on the external surface of the hoof. No horse ought to work a single day with one, because if neglected, or aggravated by work, the crack may enlarge, and end in a quittor, and false quarter.

Of the *founder* in feet, chest, or body, the symptoms are so well known, as to need no description. Progression seems universally impeded. The horse bears upon his heels, and inclines backward. Few recover, even if the disease be sudden and acute.

Running-thrushes are a fœtid discharge from the frog, the aperture of which, in consequence, appears moist, the horn perhaps decayed. *See* RUNNING THRUSHES.

Corns, upon horses, bear no analogy with those upon the human feet; indeed the term is a misnomer. There are still callous, horny excrescences about horses feet, similar enough, in all respects, to human corns, but they are not so distinguished. The ailment, in question, is called by the French *bleime*, and is, properly, a bruised spot or speck upon the sole of the heel, wearing either a red and bloodshot, or black appearance, according as it is recent, or otherwise, as we observe of the human nail. Its most common origin is from bad shoeing, and is curable by the contrary.

LA FOSSE, so attached to sub-divisions, has improved upon SOLLEYSEL, by making five instead of three species of *bleime*. In fact there are two, the natural and accidental; the one occasioned by compression of the hoof itself, in bad feet, with wiry heels and scarce any binders: the other by that of the shoe, or the intrusion of gravel, or small stones under it. The preventive remedy is the new style of shoeing. If the bruise appear dry, with no tendency to suppuration, extirpate it by degrees with the knife, or rub in frequently some spirituous application, and nature will in time outgrow the blemish; turpentine and camphorated spirits mixed: should the horse travel tender, a light bar-shoe. In case of suppuration, make a small opening for the matter, and stop with pledgets laid one over the other, dipped in the proper digestive, warm. In narrow heels, cut away the horn which presses upon the *bleime*.

The *feet*, in general, may be divided into the extremes of hard and soft, both of which are too frequently met with. For too hard feet there is no remedy, except their constantly running abroad, and then a fortnight's work upon the road will render them so feverish and painful, that your horse will be crippled; in short, have the appearance of an incipient founder. Over-strong and hard hoofs are said to occasion lameness, by compressing the internal structure of the foot. Their appearance is usually high and deep, sometimes like ass-hoofs, very hollow, with scarce any frog; sometimes much contracted a-top by the coronary rings; at others, deep, thick, and clubbed, and the horse, though sound, goes in a fumbling way. Soft feet, and low tender heels, may do great service throughout, with bar-shoes, and constant attention. Bred hacks are apt to have the feet too small; and often you will find horses, with feet of the right black flint colour, and to all appearance unexceptionable, and yet they will stand no service on the road.

Gravelling. The intrusion of gravel into the feet, chiefly through the nail-holes; one of the many ill consequences of the common method of shoeing, according to which the shoes are hollow, and apt to admit and retain the gravel, and the sole pared so thin, that it easily penetrates. The horse halts and desires to go upon his toes, and the hoof is inflamed; but as other accidents, such for instance as a clumsy shoe setting hard upon the heel, may occasion similar signs, suffer not the foal to be cut away rashly, under the idea of searching for gravel: but should there really be gravel, it must needs be drawn out by manual operation, on account of the spiral form of the hoof, which occasions any substance admitted to work upwards towards the coronet; whence a quittor may arise. This shews very clearly the folly of the old practice of stopping up a gravelled foot by night, and suffering the horse to be travelled on. Having by moderate pinching, found the offending matter, get it all out as clean as possible with the drawing knife. Your success will be known by the disappearance of the blackness; warm and deterge well with warm beer, in which is melted strong soap and salt. Leave the hole rough, and hollowed, larger internally than at the orifice, to the end, that it may better contain the application. Charge as usual. The gravel being all eradicated at a certainty (but by no means else) burning oil of turpentine may be dropped in; afterwards Burgundy pitch, or rosin.

The above method being ineffectual to dislodge the gravel, which may have penetrated deep, and laid long enough to rot the coffin-bone; enlarge the wound, cut away the rotten flesh, and dry and cleanse the bone with a cautery, pointed sugar-loaf form, as recommended by BRACKEN. Dress the bone once or twice a day with dossils of lint, dipped in tincture of myrrh-aloes half an ounce; tincture of euphorbium, two drachms. Mix. Cover with green, or precipitate ointment. Poultice the whole foot, if necessary. This method is less painful, and more effectual, than coring out the gravel with sublimate.

Bruised Frush. This happens to fleshy frogs, or in running thrushes. Poultice with stale beer grounds, &c. use the knife indiciously. Detergents, repellents, styptics, as before.

Retrait, Cloying, or Pricking, with Nail, or Stub. The two former are old terms. Retrait is when a horse is pricked by the smith, but the error being perceived, the nail is instantly withdrawn. A horse was said to be cloyed, when the whole nail was driven into the quick, and clenched. This latter case, it may be easily conceived, would not remain long unattended to; and in a retrait, although the whole of the nail should have been withdrawn, a tender-footed horse may go a little lame, and such accidents should always be acknowledged by the smith, who may be by no means in fault. Let the horse stand in the stable, some days without shoes, pare the wounded side, and wash the hoof with urine, and if any apparent wound, use the spirituous application.

Any

Any nail, ſtub, or thorn, having been extracted, to effect which no time ought ever to be loſt, waſh, dreſs, and ſtop. Tar and turpentine are frequently uſed.- If from pain and diſcharge of matter ſome remnant may be ſuſpected to remain behind, pare as thin as poſſible, and introduce a bit of ſponge tent, to enlarge the wound, and give room for the extraction of the remnant, with a ſmall pair of forceps, or encourage it to come away by digeſtion: ſhould this proceeding be ineffectual, and the lameneſs continue, with a ſanious and fetid diſcharge, uſe your drawing knife cautiouſly, and examine the bottom of the wound.

Bartlet ſays, if a nail be ſo driven as to wound the tendon, the ſoal muſt be drawn, on account of the gleet which will enſue. He ſays farther, that ſhould the joint of the foot be penetrated, or a nail paſs up to the nut-bone, the caſe is incurable. It is curious to remark the old applications for drawing out ſtubs, &c. the ſagacious preſcribers of which really thought, or ſeemed to think, their medicaments endowed with the mechanical powers of forceps, inſtead of merely digeſtive ones; as ſome old goodies, even now a-days, bleſs out thorns.

Quittor and Falſe Quarter: cauſe and conſequence. A quittor, formerly called by our farriers a quittor-bone, or horny quittor, is the *javart* of the French ſchool. It is a hard round lump, or excreſcence upon the coronet, between hair and hoof, on one or the other, but uſually the inſide quarter of the foot. Its cauſe is the aſcent of a foreign body, or morbid material from the bottom, or ſoal upward; as a nail, a quantity of gravel, or the extravaſated matter of a bruiſe or corn, which could find no vent below; theſe forcing their way between the quarter and the coffin bone, work a paſſage to the coronet, by deſtroying the foliated ſubſtance, and corrupting all the adjacent parts. This diſeaſe may be a conſiderable time in breeding, to the exquiſite torture of the animal, whoſe wincing, as well as the lump and inflammation upon his coronet, are perhaps totally neglected by his maſter, until ſuppuration, and an ulcer of the moſt ſtubborn and dangerous kind enſue. The *thorough* quittor, of all maladies to which the horſe's foot is liable, is the moſt hopeleſs, if we except the founder; which makes it neceſſary to caution the reader againſt thoſe ſuperficial and palliative methods ſo confidently recommended. Any thing ſhort of the moſt radical operation in this caſe, will endanger the ſpeedy and total loſs of the hoof, for which reaſon no cure can poſſibly be made without the ill conſequence of a *Falſe Quarter*, or ſeam down the hoof, from neceſſary loſs of ſubſtance. A horſe with this latter defect, may be very ſound in ſlow draft, but never could be depended upon to ride. They are apt to drop down ſuddenly, as if ſhot. A ſuperficial quittor, originating above, in which the cartilage is untouched, or a mere wound or ulcer in the coronet, is curable by the method already deſcribed.

St. Bel compares the horny quittor to the third ſpecies of whitlow on the human nail. Bating a little flouriſh, that author is much ſuperior to any in our language, on the cure of this diſeaſe; we ſhall therefore follow him. Probe the ulcer, carefully following the direction of the fiſtulas, to diſcover whether the cartilage be affected; but if it ſhould be impoſſible to judge exactly of the irregular bottoms of the wound, it will be neceſſary to proceed to the following operations:—Reduce the horſe's ſolid food, and give maſhes of bran and ground corn, with plenty of white water. Pare the hoof, raſp the quarter thin near the ſeat of the operation, and wrap the foot up in an emollient poultice two or three days. Having caſt the horſe plenty of litter, and made a ligature round the paſtern, to prevent a flux of blood, an inciſion is to be made with a biſtory or knife, parallel with the coronet, and long enough to diſcover the cartilage in all its extent. Cut away as much of the upper part of the wall as neceſſary, but preſerve the lower part of the quarter and heel, as a ſupport, if poſſible; then with the inſtrument called a ſage-leaf (from its form) having a blunt back, and being ſlightly bent, cut away the cartilage gradually at three or four different attempts. In paſſing the inſtrument behind the cartilage, which covers the principal blood-veſſels of the foot, as well as the capſular ligament of its articulation with the bone of the coronet, the operator muſt uſe the utmoſt caution, ſince if he make an accidental opening or breach in thoſe, the horſe is lamed for ever. Scrape away lightly with the knife, the remaining fragments of the root of the cartilage, obſerving to fix the inſtrument on a ſolid part, and gently bearing from within outward, to avoid opening the adjoining capſular ligament. When all the cartilage is cleared away, examine the ſtate of the bone of the foot; if carious, remove the faulty part, and fire, in order to exfoliation. Search the wound carefully to the bottom, to aſcertain whether there be any remaining ſinus or fiſtula; and the operation completed, give the firſt dreſſing, by applying to the bottom of the wound ſmall pledgets, ſoaked in a mixture of brandy, vinegar, and turpentine. The dreſſings muſt make an equal but ſufficient compreſſion on all the ſurface, and may be finiſhed by laying over the wound, and round the coronet, large pledgets, to avoid compreſſing the part. The bandage conſiſts of a piece of linen, almoſt ſquare, and big enough to go round the paſtern and the foot, with a roller three ells in length, and two inches broad; lead to the ſtable, and then take off the ligature from the paſtern. Bleed. Febrifuge diet.

The firſt dreſſing muſt remain a week, and then the wound muſt not be probed for fear of a hemorrhage: The ſecond, five days, when ſuppuration will have taken place, unleſs the wound has been too ſtrongly compreſſed: dreſs as at firſt. In a few days the third dreſſing muſt come off, and if any black ſpots appear on the ſurface, they commonly indicate that there are yet relics of the cartilage; if ſo remove them. Dreſs every other day with the ſame digeſtive, the cauterized parts excepted, on which ſmall pledgets, dipped in tincture of myrrh-aloes, are to be applied. The exfoliation may happen in two weeks, or a month, according to the age and conſtitution.

When the eſchar has fallen off, the wound ſoon fills up; but ſhould any particle of the cartilage or bone remain, and the exfoliation have been imperfect, freſh

fistulæ would ensue, and occasion the necessity of a new operation Probe the black spots, and if needful introduce a sufficiently solid tent, soaked in the above-named tincture, and lightly dusted over with powdered vitriol, or red precipitate, in order to facilitate the desired exfoliation, and consume part of the flesh covering it. When once the wound is sound to the bottom, all danger is at an end, and the trouble is amply recompensed. Run at grass previous to work.

Grogginess is that stiffness arising from battering of the hoofs on hard ground, or swelling of the legs, and contraction of the sinews. A horse bearing all upon his heels in his trot, is styled groggy, and the defect is generally incurable. *Surbating* is derived from the *Sobatitura* of the old Italian writers, and means beating of the foot, which ends in a founder. Sudden accidental surbating, or compression by the shoe, will be remedied by timely stable attention.

The *Foot-founder* is an obstruction, or condensation of the humours; and is either acute and from sudden accident, or the consequence of a long series of predisposing causes, many of which have already been noticed. A sudden foot-founder may be occasioned by suppressed perspiration, or it may associate with the body-founder, or it may arise from standing constantly tied up in a narrow stall. It is generally in both feet, either before or behind, sometimes in all four. There is great inflammation in the parts, and swellings of the veins in the legs; and in the acute founder, a symptomatic fever attends. The acute and chronic have been formerly, and by no means improperly distinguished, as the wet and dry founder. By the straining of the muscles of the loins, in order to favour the pained feet, some farriers have supposed the disease to be in the loins; however, the symptoms of founder, are too obvious to be mistaken. GERVASE MARKHAM very aptly compared the sensation of the horse from the foundered foot; to the pricking and shooting experienced by the human animal, from obstructed blood in the foot, when said to be asleep: but the old farriers made a dreadful mistake in gartering up the leg in this case, which must necessarily increase the obstruction, and redouble the tortures of the afflicted beast; in short, the number of similar instances, independent of any other consideration, ought to be an eternal bar to confiding the medical or surgical care of animals to merely mechanical hands.

All that can be done in the stable is as follows; as soon as convenient after which, turn the horse off, for six months at least, upon salt pastures in preference, but at any rate, where shelter may be had, and where feed is not difficult to be come at, or the foundered creature may be starved either for want, or from cold; cut the toe until the blood come, and let the hoof bleed awhile; then with the drawing knife make a number of vertical incisions, through the whole foot, from under the coronet almost to the toe, nearly or quite to the quick, without even fearing to touch the cartilages: the feet may be wrapped in emollient poultices a few days, afterwards charge with tar, and powdered olibanum; or pitch and rosin.

In an acute founder, bleed; allow an opening diet, with saline physic, and nitre and clysters, as in fever and motten-grease. Pare down the crust, and thin the sole. Soak the feet and legs thoroughly in warm water, in which bran has been scalded; and afterwards gently rub dry with cloths. Leave the feet all night in poultices of mealy potatoes and scalded bran, mixed up with oil of turpentine, which may be continued three nights. My reason for advising potatoes, is because I find they retain the heat much longer than any of the usual articles. Prepare the fotus, (with or without spirits, or sal ammoniac) or bath for the legs and feet, in which steep them well, keeping the liquor to a constant convenient heat, full half an hour; giving the legs afterwards long continued gentle frictions. Stop the feet with pledgets of tow dipped in the warm mixture of turpentine, linseed oil, and camphorated spirits; and bind the hoofs round with flannel dipped in the same mixture. These measures must be persevered in strictly three times a day, until the condensed and stagnated humours are rendered sufficiently fluid for circulation, when the overstretched vessels being disburthened of their superfluous contents, may be restored to their proper tone by restringent applications. Walking exercise in the mean time will be beneficial, but it must be in a dry and warm place, and the greatest care taken that the feet be not wetted, and the horse should be led, not ridden. When the inflammation shall have subsided, and the proper feeling of the feet have returned, measures directly opposite to the foregoing, must be adopted. Wash the feet in urine and vinegar, first blood-warm, afterwards cold; bathe the legs with the restringent embrocation, lead abroad daily, and prepare by degrees for the only effectual restoratives, grass, and the dew of heaven. These measures failing, recourse must be had to the operation as in the chronic case. The old farriers, and ST. BEL after them, remarked that a foundered horse, by way of easing the tension and pain in his legs and feet, would place himself upon his back. Would it not promote the reflux of the stagnant humours to continue the horse in that posture half an hour a day, upon a soft bed, extending and fastening up his four legs, in such sort, that the ligature did not impede the course of the blood?

It has been the general practice of farriers, to pare the sole of the foundered foot thin, and charge it with pitch and tallow, or some such combustibles, boiling hot, which appeared to some to confirm the founder. A foundered and feverish foot is sometimes soaked an hour in a cold bath, in which have been infused the most powerful repellents and astringents. This practice has been derived from ancient authority, and is prescribed by PETRUS CRESCENTIUS, and others, but that, and even the consideration that such method has ever since prevailed in the continental schools, is no absolute proof of its rectitude.

When from any accident, the whole hoof shall become loose, so as to indicate an entire parting from the bone, prepare a pliable leathern boot, with a strong sole, fitted to the foot, to be laced around the pastern. The boot to be bolstered and stopped with soft flax or tow, that the horse may tread as easy as possible, and the stop-

ping

ng to be daily renewed. Dress with wound ointment, in which is mixed myrrh, mastich, and olibanum, very finely powdered. In case of fungus; precipitate, sublimate water, &c. Should the coffin be sound, a good new hoof will be produced; but it must be noted, the old hoof will fall spontaneously, and ought by no means to be removed by violence, or the knife; unless indeed where it may compress the new.

FELDFARES,

The Manner of taking them by Water Bird-lime.

Take your gun about *Michaelmas*, or when the cold weather begins to come in, and kill some feldfares, then take one or two of them, and fasten to the top of a tree, in such a manner, that they may seem to be alive. When you have done this, prepare two or three hundred twigs, take a good birchen bough, and therein place your twigs; having first cut off all the small twigs, set a feldfare upon the top of the bough, making it fast, and plant this bough where the feldfares resort in a morning to feed; for they keep a constant place to feed in, till there is no more food for them left.

By this means others flying near will quickly espy the top bird, and fly in whole flocks, or a great number to him.

FERME A FERME; a word peculiar to the menage schools, signifying in the same place, without stirring or parting.

You must raise that horse *ferme a ferme*. This horse leaps upon *firma a firma*, and works well at caprioles.

FENCE MONTH, the month wherein deer begin to fawn, during which it is unlawful to hunt in the forest. It begins *June* the 19th, and continues to *July* the 19th.

There are also certain fence or defence months, or seasons for fish, as well as wild beasts, as appears by West, 2 G. 3. in these words: "all waters where salmon are taken, shall be in defence from taking any salmons from the Nativity of our Lord, unto St. *Martin*'s day: likewise, that young salmons shall not be taken or destroyed by nets, &c. from the midst of *April*, to the Nativity of St. *John* Baptist."

FERRET, is a creature that is bred naturally in *England*, but not in *France*, *Germany*, *Italy*, and *Spain*; they are tamed for the use of those who keep warrens, and others.

The body of this animal is longer than is proportionable; their colour is variable, sometimes black and white upon the belly; but most commonly of a yellowish sandy colour, like wool dyed in urine.

The head is something like that of a mouse, and therefore into what hole soever she can put it, all the body will easily follow after.

The eyes are small, but fiery, like red hot iron, and therefore she sees most clearly in the dark.

Her voice is a whining cry without changing of it: she hath only two teeth in her nether chap, standing out, and not joined and growing together.

The genital of the male is of a bony substance, and therefore it always standeth stiff, and is not lesser at one time than another.

The pleasure of the sense of copulation, is not in the genital part, but in the muscles, tunicles, and nerves, wherein the said genital runs.

When they are in copulation, the female lieth down, or bendeth her knees, and continually crieth like a cat, either, because the male claweth her with his nails, or by reason of the roughness of his genital.

The ferret usually brings forth seven or eight at a time, carrying them in her belly for forty days: the young ones are blind for thirty days after they are littered, and they may be used for procreation, as their dam is, within forty days after they can see.

When they have been tamed, they are nourished with milk or barley bread, and they can fast a very long time.

When they walk they contract their long back, and make it stand upright in the middle, round like a bowl: when they are touched, they smell like a martel, and they sleep very much.

The ferret is a bold audacious animal, an enemy to all others but his own kind; drinking and sucking in the blood of the beast it biteth, but eateth not the flesh.

When the warrener has occasion to use his ferret, he first makes a noise in the warren to frighten the conies who are abroad into their burrows, and then he pitches his nets; after that he puts the ferret into the earth, having muzzled her mouth, so that she may not seize but only frighten the conies out of their burrows, who are afterwards driven by the dogs into the nets or hays, planted for them.

FETLOCK, is a tuft of hair as big as the hair of the mane, that grows behind the pastern joint of many horses; horses of low size have scarce any such tuft.

Some coach-horses have large fetlocks; and others have so much hair upon theirs, that if the coachman does not take care to keep them clean and tight, they will be subject to the watery sores called *the waters*.

FEVERS, (in Farriery.) Horses are very subject to fevers, from a great variety of causes, and care should be taken as soon as the creature is seized, to attempt the cure.

When a horse is seized with a fever, he will be remarkably restless, ranging from one end of the rack to the other; his flanks work; his eyes appear red and inflamed, his tongue parched and dry, his breath hot, and of a strong smell; he is often smelling to the ground, loses his appetite, and though he will take the hay into his mouth, does not chew it; his whole body is hotter than ordinary, but not parched; he dungs often, little at a time, usually hard, and in small pieces. His urine is high coloured, and he generally stales with pain and difficulty: he is always craving for water, and drinks often, but very little at a time; and his pulse is much quicker than common.

Whenever a fever is perceived, the first part of the cure is bleeding, and the quantity, if the horse is strong, and in good condition, should amount to two or three quarts. When this has been done, give him four times a day a pint of the following infusion: Take

of baum, ſage, and chamomile-flowers, of each a handful; of liquorice-root, ſliced, an ounce; and of nitre, three ounces; pour upon theſe ingredients two quarts of boiling water, and when cool, ſtrain it off; ſqueeze into it the juice of three lemons, and ſweeten it with honey.

The horſe ſhould eat nothing but ſcalded bran, given him in ſmall quantities; but if he refuſes this, let him have dry bran ſprinkled with water, and let a little hay be put into his rack, as a ſmall quantity of it will not be prejudicial, and a horſe will often eat hay, when he will not touch any thing elſe. His water ſhould be a little warm, given often, but in ſmall quantities; and his clothing moderate, too much heat being pernicious in a fever.

This method, with good nurſing, will often prove ſufficient to reſtore the horſe to health; but if he refuſes his meat, more blood ſhould be taken from him, and the drink continued; if his dung be hard and knotty, the following clyſter ſhould be given: Take of marſhmallows, two handfuls; of chamomile flowers, one handful; and of fennel ſeeds, one ounce: boil the whole in three quarts of water, till one quart is waſted; then ſtrain off the liquor, and add to it four ounces of treacle, and a pint of common oil.

This clyſter ſhould be given every other day; and the intermediate day, the following ſhould be given: Take of cream of tartar, and of GLAUBER's ſalts, of each four ounces; diſſolve them in barley-water, and add one ounce of lenitive electuary.

By purſuing this method, the horſe will begin to recover, and he will reliſh his hay, though his flanks will continue to heave pretty much for a fortnight; but nothing more will be requiſite to compleat the cure, than walking him abroad in the air, and giving him plenty of clean litter to reſt on in the ſtable.

But there is another and much worſe ſort of fevers, to which horſes are very ſubject, and which often proves fatal, if not properly treated.

The ſymptoms of this diſorder are a ſlow fever, with great depreſſion; he is ſometimes inwardly hot, and outwardly cold; and at other times hot all over, but not to any extreme. His eyes appear moiſt and languid; his mouth is continually moiſt, ſo that he is not deſirous of drinking; and when he does, a very little ſatisfies him. He eats very little, and even then moves his joints in a looſe, feeble manner, and grates his teeth very diſagreeably; his body is generally open, his dung ſoft and moiſt, his ſtaleing irregular, ſometimes making little, at others a large quantity of water, which is of a pale colour, and has very little ſediment.

The firſt relief is to take from him a moderate quantity of blood, let it not exceed three pints, but repeat the operation in proportion to his ſtrength, fullneſs, cough, or any tendency to inflammation; after which the nitre drink already deſcribed, may be given, with the addition of an ounce of ſnake-root, three drachms of ſaffron, and the ſame quantity of camphire firſt diſſolved in a little ſpirits of wine.

The diet and management will be nearly the ſame in all ſorts of fevers; and, in general, the following rules, if attended to, will be found uſeful. Let them have very little hay at a time in the rack, but always the beſt that can be picked out; if the hay is given out of the hand the horſe will ſometimes eat, whereas without ſuch care he would not: kindly horſes particularly require to be ſo fed. Oats are to be avoided, but bran, either ſcalded, or ſprinkled with a little water, if freſh and ſweet, may be frequently given in ſmall quantities. It is a bad cuſtom in theſe caſes to force warm water on horſes, it often creates a nauſea and loſs of appetite; if he will drink warm water, or warm oatmeal gruel that is very thin, he may, but if he prefers cold water, let him have it, for the cold often removes a nauſea, and reſtores the appetite; it ſhould alſo be given as often as he pleaſes, though not in full draughts. The cloathing may be the ſame as in health, for fevers in horſes do not go off as in men, by great ſweats, or by any other increaſed evacuation, but gradually abate by means of a ſtrong perſpiration; indeed, when the kernels about the head and neck are ſwelled, theſe parts may be kept a little warmer, as by this means a diſcharge at the noſe is increaſed, which is very ſalutary. Here it is neceſſary to caution againſt the practice of ſome who ſyringe the noſe, and thereby produce other ſwellings in the adjacent parts. When a horſe begins to recover, carefully avoid over-feeding him, for by ſuch a practice obſtinate relapſes or ſurfeits are produced; to increaſe the quantity of his food only as his ſtrength increaſes, will prevent ill effects, and produce the advantages required.

There is good reaſon to expect a ſpeedy recovery, when the fever is obſerved to abate, the mouth is leſs parched, the grating of the teeth is not much heard; when the horſe begins to eat, and lay himſelf down; if his ſkin feels kindly, and his eyes ſeem lively. But, if the appetite does not mend, or if it declines, and if the heat continues, the caſe is dangerous. When there is a running at the noſe, it is generally of a reddiſh or greeniſh duſky colour; it is thickiſh and clammy, ſticking to the hairs in the noſtrils: now if this matter becomes clear and watery, it is a favourable ſign; but if it continues thus viſcid and ill-coloured; if the horſe at the ſame time ſneezes frequently; if the fleſh is ſtill flabby, and he ſeems hide-bound; if the weakneſs increaſes, and the joints ſwell; the kernels under his jaws are looſe, and yet ſwelled; if he lifts up his tail with a quivering motion, the caſe is deſperate indeed.

We will introduce the method of cure by a remark on the pulſe, and the method of feeling it; in general it is obſerved, that on a medium the pulſe of a horſe in health, whoſe circulation is unaffected by any accident, is perceived forty times in a minute, and that if in ſuch a horſe the number of pulſations increaſe to fifty, the heat of his body far exceeds the heat of a healthy ſtate, or, in other words, he is in a fever. To diſcover the pulſations, lay your finger on the artery in the ſide of the neck, juſt above the cheſt, or feel for the arteries in the temples, or in the inſide of the legs, particularly the fore-legs, and you will perceive them very

very diſtinct. The ſame end is obtained by laying your hand on the horſe's ſide, to count the motions of the heart.

In proportion to the degree of heat, and the ſtrength of the horſe, bleed from three to ſix pounds, and if there is any apprehenſion of coſtiveneſs, give him a laxative clyſter; after this, let him have more or leſs, from two to four ounces, of the following ſaline powder, two or three times a day, according to the violence of the fever, which in the inflammatory ſpecies often requires full doſes; diſſolve it firſt in three or four pints of water, then add to it as much more water as he will drink at once, and that either warm or cold, as the horſe will take it beſt; if a little bran or barley-flour be mixed with this liquor, it will be leſs diſagreeable.

The Saline Powder.

Take ſalt-petre, five pounds; ſalt of tartar, one pound; mix them well in an iron or marble mortar, and then put it up in a bottle well corked, to be uſed as required.

During the uſe of this, or of any other preparation with nitre, the horſe ſhould be permitted to drink at pleaſure, for nitre, in order, being very uſeful, requires to be well diluted.

If by theſe means the horſe begins in a few days to eat a little, this method alone will be ſufficient, if care in nurſing is not neglected: but if the appetite does not return, nor the fever abate, repeat the bleedings, and continue the ſaline powder as before directed; and, if coſtive, give the following

Laxative Cooling Drink.

Take of cream of tartar, and of GLAUBER's ſalt, each four ounces; diſſolve them in a ſufficient quantity of water for him to drink at one time.

As ſoon as by theſe methods he begins to eat, and the violence of the ſymptoms in general give way, though his flanks do heave, which will be the caſe ſeveral days after the abatement of all other ſymptoms, there will nothing farther be requiſite, than to walk him gently abroad now and then in the day, and to allow him plenty of litter.

In caſe of violent inflammation with the fever, which is attended generally with pain or ſwelling, or both, in particular parts; the ſame method in general will be required as in the caſe of ſimple fevers, only the bleedings ſhould be more plentiful, and, perhaps, oftener repeated; as alſo a more liberal uſe of the ſaline powder, and other cooling means. *See* INFLAMMATION *of the* PLEURA, *&c.*

The cure of intermittents will conſiſt in a cautious uſe, or an omiſſion of bleeding, according to the horſe's ſtrength: and during the intervals of the fits, to give an ounce of Peruvian bark, finely powdered, repeating it every four hours while the fit is abſent. If the bark runs off with a lax, add to it a little diaſcordium, or other aſtringent, enough to check that effect; but, perhaps, after the firſt day or two it may not purge, ſo that, except it continues to produce that effect, the aſtringents are beſt omitted. In caſe of any other ſpecies of fever intermitting, the ſame method may be uſed as where an intermittent is the original diſeaſe.

The low kind of fever rarely admits of bleeding, yet does not abſolutely forbid it; great circumſpection is here neceſſary, for ſymptoms which uſually require this evacuation, will in this caſe ſoon give way, from the very nature of the diſeaſe; however, if the horſe is young and ſtrong, if his veſſels ſeem filled with a rich blood, two or three pounds may be taken away in the beginning of the diſeaſe, and may be repeated as the force of any inflammatory ſymptoms may indicate.

Whether the bleeding is uſed or not, give the following cordial ſaline mixture:

Take of crude ſal ammoniac, two ounces; diſſolve it in three pints of water; then add to it one ounce of Virginia ſnake root, finely powdered, and three drachms of Engliſh ſaffron; mix, and give a pint three times a day, more or leſs, as the urgency of the ſymptoms may require.

If, notwithſtanding this, the fever increaſes, the appetite grows leſs; if the urine is thin, pale, and frequently ejected; the dung changeable, as to moiſture and dryneſs; if his gums ſeem red and ſpongy; if the coat ſtares; the caſe being now dangerous, give the following balls:

Compound Fever Balls.

Take of bark, finely powdered, one ounce; of Virginia ſnake-root, half an ounce; camphire, one drachm; honey enough to make a ball; to be given with each doſe of the cordial ſaline mixture; or with the following camphorated drink, according as the ſymptoms may require the one or the other. Or,

For horſes of ſmall value, the following balls may be ſubſtituted for the above-named:

Take of diapente and mithridate, each half an ounce; camphire, one drachm; make them into a ball, to be given every four or ſix hours, with a hornfull of an infuſion of ſnake-root, rue, and diaſcordium.

The Camphorated Drink.

Take of camphire, one drachm; diſſolve it in rectified ſpirit of wine, one ounce; add to it gradually a pint of diſtilled vinegar, and give half a pint for a doſe, mixed with a pint of thin gruel, or of water in which a little bran hath been ſtirred.

If the horſe is coſtive, laxative clyſters ſhould be given; though gentle and warm purges are rather to be preferred; if a purging comes on, let it continue, if it is moderate; but if it ſeems to enfeeble him, add gentle reſtringents, ſuch as diaſcordium to his drink; or, if needful, add more powerful remedies.

In this ſort of fever a horſe often ſtales with great difficulty, and his ſpirits are thereby much depreſſed. In this caſe prepare his drinks with freſh made lime-water, which ſhould be clear, but retaining as much of the heat as poſſible, that is excited by the addition of the lime to the water. If, notwithſtanding this, the urine

urine is ſtill defective, ſo that the body or limbs begin to ſwell, give the following diuretic drink:

Take nitre, one ounce; Venice turpentine, diſſolved with the yolk and white of one egg, half an ounce; then gradually add a pint of a ſtrong decoction of marſh-mallow-leaves, or of parſley-roots; let this be given for one doſe, and repeat it every four or ſix hours, until the urine flows freely.

In this diſeaſe, drinking is abſolutely neceſſary to dilute the blood, and therefore if the horſe refuſes warm water, he ſhould be indulged with ſuch as has had only the chill taken off, by ſtanding ſome time in the ſtable. And this will prove no diſadvantage, for the warm water forced on horſes, palls their ſtomachs for a time, and conſequently takes away their appetite; but this water, which has only ſtood in the ſtable, reſtores them.

If this method ſhould not prove ſufficient, but the fever continues to increaſe, the following balls ſhould be given immediately, as the danger augments every hour: take of contrayerva-root, myrrh, and ſnake-root, powdered, of each two drachms; of ſaffron, one drachm; of mithridate, or Venice treacle, half an ounce, make the whole into a ball, with honey, which ſhould be given twice a day, and waſhed down with two or three horns of an infuſion of ſnake-root, ſweetened with honey, and acidulated with half a pint of vinegar.

If theſe balls ſhould not anſwer the intention, (which will not often be the caſe) add to each a drachm of camphire, and, when the horſe is of value, the ſame quantity of caſtor.

Or, the following drink may be given, which has been often attended with ſucceſs: take of camphire, one drachm diſſolved in an ounce of rectified ſpirit of wine, pour it gradually into a pint of diſtilled vinegar, and give it at two doſes.

Perhaps there is not a more powerful and effectual medicine known than camphire, in all theſe kinds of putrid fevers, being active, attenuating, and particularly calculated to promote ſecretions of urine and perſpiration, the two principal outlets by which the febrile matters are diſcharged; and it would be fortunate for the poor beaſt, and advantageous to the farrier, if it were oftener given than at preſent.

It is neceſſary to be obſerved, that if the horſe ſhould prove coſtive, clyſters, or an opening drink, will be neceſſary; and ſhould he purge, care muſt be taken not to ſuppreſs it, if moderate; but if it continues long enough to render the horſe feeble, add diaſcordium to his drink inſtead of mithridate.

Another neceſſary obſervation is, to let him drink plentifully, as that will greatly tend to promote the operation of the above medicines, and conſequently render them more effectual in curing the diſorder.

A particular regard ſhould alſo be had to his ſtaling, which muſt be repreſſed by proper aſtringents, and giving him lime-water, if it ſhould flow in too great quantities: and on the other hand, if it happens, that he is too remiſs that way, and ſtales too little, ſo as to occaſion a fulneſs and ſwelling of his body and legs, the following drink ſhould be given: Take of ſal-prunella, or nitre, one ounce; of juniper-berries, and Venice-turpentine, of each half an ounce, make the whole into a ball, with oil of amber.

Two or three of theſe balls may be given at proper intervals, and waſhed down with a decoction of marſhmallows, ſweetened with honey.

Theſe are the beſt methods of managing fevers, and will generally prove ſucceſsful; but ſometimes art will fail, and the horſe will diſcharge a greeniſh or reddiſh gleet from his noſtrils, and ſneeze very frequently; he will continue to loſe his fleſh, become hide-bound, refuſe his meat, ſwell about the joints, and his eyes appear as if fixed and dead, and a purging enſue, in which he will diſcharge a fœtid, dark coloured matter; when theſe ſymptoms appear, his caſe may be conſidered as deſperate, and all attempts to ſave him will be in vain.

But, on the contrary, when his ſkin feels kindly, his ears and feet continue of a moderate warmth, his eyes look briſk and lively, his noſe continues clear and dry, his appetite mends, he lays down with eaſe, and dungs and ſtales regularly, you may conclude that the danger is over, and nothing wanting but care to compleat the cure.

But you muſt be very attentive to his feeding, and not ſuffer him to eat too much; his diet ſhould be light; a ſmall quantity only given him at one time, and increaſed by degrees, as he gathers ſtrength; for horſes have often catched great ſurfeits, and relapſed into their former diſeaſe, merely through over-feeding.

Sometimes the fever will be brought to intermit, or leave the creature for a time. If this ſhould happen, be very careful as ſoon as you find the fit is over, to give him an ounce of Jeſuit's bark, and repeat it every ſix hours, till the creature has taken five or ſix ounces: if any eruptions or ſwellings, they ſhould be encouraged, as they are good ſymptoms, and denote a termination of the diſtemper, and that no more medicines are neceſſary.

In the years 1732, and 1733, a terrible epidemic fever raged among the horſes, and it was then found by experience, that the ſimpleſt method was attended with the beſt ſucceſs, and that thoſe who treated the diſtemper in the following manner were rarely diſappointed.

The firſt operation was to bleed largely, to the quantity of three quarts, if the horſe was ſtrong and full of fleſh; and if his lungs were not relieved by it, but continued ſtuffed and loaded, the bleeding was repeated, and a rowel put in the cheſt or belly.

Theſe previous operations being performed, take care to dilute the blood, by giving the creature plenty of water, or white drink: and let his meat be warm bran maſhes, and his hay ſprinkled. If the fever ſhould increaſe, which may be known by the ſymptoms above deſcribed, give him an ounce of nitre thrice a day in his water, or made up into a ball with honey. Let his body be kept cool and open, with the opening drink, given twice or thrice a week; or an ounce of ſalt of tartar

may

may be given every day, diſſolved in his water, obſerving to omit the nitre. After a week's treatment in this manner, the cordial ball may be given once or twice a-day, and waſhed down with an infuſion of liquorice root ſweetened with honey; to which may be added, when the phlegm is tough, or cough dry and huſky, a quarter of a pint of linſeed, or ſallad oil, mixed with an equal quantity of oxymel of ſquills.

Care ſhould be taken on theſe occaſions to keep the head and throat warmer than common, as the kernels about the latter are generally ſwelled, to promote a free perſpiration, and increaſe the running at the noſe, which has the ſame effect in a horſe as ſpitting in the human ſpecies. But never attempt to ſyringe the noſe, as ſome too often do, to promote the diſcharge; for it has quite a contrary effect, and will leſſen the quantity of matter which ſhould be increaſed as much as poſſible. The checking of this matter, not only increaſes the fever, but alſo occaſions bad ſwellings in the parts and glands, in and near the head. And let me once for all remind the practitioner, that all ſuch diſcharges are critical, and thrown off by nature to free herſelf from the load that oppreſſes her, and conſequently ſhould by all means be promoted.

Mr. LAWRENCE, in treating on fevers in horſes, ſays, "Fever is almoſt invariably combined with catarrh; and ſuch is the analogy between them in their cauſes, effects, and cure, that they might not very improperly be eſteemed ſynonymous, with the diſtinction of hot and cold catarrh. In a retropulſion of that fine fluid or exhalation, the perſpirable matter, which even thoſe who have corrected SANCTORIUS, make ſo conſiderable in quantity; if the load be thrown upon the pituitary membrane, and be evacuated by the uſual catarrhal diſcharge, the diſeaſe is called a cold; but if the obſtructed matter remain fixed upon any bowel, it may aſſume the denomination and guiſe of fever, or perhaps of ſome other diſeaſe

The following extract on the theory of fever is from Dr. DARWIN.—"Simple fevers are of two kinds; firſt, the *febris irritativa*, or fever with ſtrong pulſe; which conſiſts of a previous torpor of the heart, arteries, and capillaries, and a ſucceeding orgaſm of thoſe veſſels. Secondly, the *febris inirritativa*, or fever with weak pulſe, which conſiſts of a previous torpor of the heart, arteries, and capillaries; and of a ſucceeding orgaſm of the capillaries, the torpor of the heart and arteries continuing. But as the frequency of the pulſe occurs, both in the ſtate of torpor, and in that of orgaſm of the heart and arteries; this conſtitutes a criterion to diſtinguiſh fever from other diſeaſes, which are owing to the torpor of ſome parts of the ſyſtem, as pareſis and hemicrania.

"*Compound Fever.* When other parts of the ſyſtem ſympathize with this torpor and orgaſm of the cutaneous capillaries, and of the heart and arteries; the fever fit becomes more complicated and dangerous; and this in proportion to the number and conſequence of ſuch affected parts."

The ſymptoms of fever in horſes, analogous to thoſe in our own ſpecies, are either mild, intermittant, inflammatory, or hectic and malignant; and there is an equal analogy in the claſs of medicines indicated, and the method of cure. Horſes, from the nature of their ſervices, and the ſeverities they undergo, muſt neceſſarily be much expoſed to febrile diſorders, ſome of the moſt common cauſes of which are, exceſs of exertion, particularly in the hot ſeaſon; plethora, or ſuperabundance of blood, from high feeding and little exerciſe, in general, any obſtructed humour thrown upon the circulation; the inſpiration of malignant air.

We refer thoſe who deſire much practical information upon this diſeaſe in horſes to GIBSON, who, if he has not treated it with ſcientific and logical preciſion, has done that which is of infinitely greater uſe; he has deſcribed the various ſymptoms from his own obſervation, and given a very rational method of cure from his own practice: from him chiefly have all our minor authors derived their pathology and preſcriptions in the different ſpecies of fever, which they have haſhed and ſerved up again, in that which each ſuppoſed to be the moſt plauſible form. BRACKEN is lame and imperfect on fever, obviouſly from haſte and inattention; but his looſe remarks deſerve to be read over.

BARTLET is the mere echo of GIBSON; but that indefatigable diligence, which is BARTLET's honourable characteriſtic, is ever at work to pick and cull from all quarters, whatever he judges may be uſeful to his readers:—in his *Pharmacopœia Hippiatrica*. OSMER, muſt be conſulted in Epidemics, and the veterinary practitioner, even if experienced, will not regret the ſmall labour of having peruſed Dr. LAYARD.

In the fevers of horſes which ſeldom retreat by critical ſweats, no additional clothing ſhould be uſed in the ſtable, nor the head covered, unleſs for the particular purpoſe of encouraging a critical diſcharge from the noſtrils. The ſtable ſhould not be kept in a ſtifling heat, and the horſe ought to be walked out daily, if circumſtances will permit; but abroad, he ought to wear his hood. GIBSON allowed cold water in fevers, and almoſt all other authors have implicitly followed him; but ſuch practice may be attended with extreme, probably inſtant danger. Water blood warm, or white water, that is, ſuch as has had a little bran, or oatmeal boiled in it, muſt ſurely be preferable; but if cold water muſt needs be allowed, let it be previouſly boiled.

Thoſe hot aromatic drenches of the common farriers, with which they do ſo much miſchief in fevers, have been cenſured; another caution is neceſſary againſt the common groundleſs apprehenſion of horſes ſtarving themſelves, by their abſtinence during ſickneſs; this is by no means peculiar to grooms, our good old nurſes, who, when we are debilitated, "cram us till our guts ache," with that delectably light, nutritious ſubſtance, calve's-foot jelly, coming in for their full ſhare of the merit. Let it be remembered, that in general the appetite ought to be the only director in this caſe; and that nothing can be more prepoſterous than to force ſolid aliment upon a ſtomach moſt probably already overladen with morbid matter, which mixing with the new acceſſion, will either remain an inert indigeſted ſtercoraceous maſs, or going through the common proceſs of digeſtion, ſend an impure and vitiated chyle into the

the blood, to add new force and virulence to the diſeaſe. Should the horſe have faſted a conſiderable time, and no indication appear of returning appetite, his ſtrength will be beſt ſupported by nutritious clyſters, which may be exhibited ſeveral times in the day. Locks of the beſt and ſweeteſt hay ſhould be offered him, as the practical GIBSON well obſerves, by hand, a method by which moſt horſes will be tempted to feed, particularly if the food be tendered by a favourite. At any rate, ſolid corn is highly improper in fevers, unleſs in very ſmall quantities, and ground, as an addition to the maſh, and even that is moſt befitting the decline of the diſeaſe or convaleſcent ſtate: the common diet muſt be hay, ſcalded bran, or pollard, warm freſh grains.

On the re-eſtabliſhment of health, after any acute diſeaſe, it will be found of material conſequence to guard againſt the too ſudden return of appetite in the horſe; the inordinate indulgence of which may induce ſurfeit, indigeſtion, and the diſagreeable concomitants of an acceſſion of crude and unconcocted humours. Bring him gradually to his accuſtomed rations of ſolid meat. To counteract the ill effects of any morbid relics in the conſtitution, a doſe or two of purging phyſic, or a ſhort alterative courſe may be expedient; the choice in which muſt be left, in all caſes, to the judgment of the practitioner, who is referred to the Chapter on Purgatives. On the contrary, ſhould the patient be left by the diſeaſe in a weak and impoveriſhed ſtate, the craſis of his blood broken, his pulſe languid, and his appetite ſmall, ſhewing in his whole appearance what the old farriers called "leanneſs and miſlike;" recourſe muſt be had to a light and nouriſhing diet, with the daily aſſiſtance of a cordial ball. In this caſe, boiled meat has very ſudden happy effects. Boiled barley, or other corn. Turnips and oatmeal boiled, ſome of the liquor being infuſed in the drink. Boiled rice and potatoes. Baked potatoes. Raw carrots and lucern. Mild rhubarb purge. Moderate walking exerciſe on dry ground; for frequently relapſe, and very diſagreeable effects, enſue on the expoſure of the feet and legs to wet, in caſe of recent recovery from fever.

The common ſymptoms of fever in the horſe are extraordinary heat and dryneſs of the ſkin, jaws and tongue, ſtrong breath, pulſe quicker than natural, or intermittent, inflamed eyes, heaving at the flanks, and impeded reſpiration, ears and the lower extremities hot, reſtleſſneſs and fickle appetite, either to meat or drink, ſometimes avidity of drink, frequent caſting out of dung-balls, and difficulty of ſtaling, high coloured turbid urine. Theſe ſigns at their commencement may indicate nothing more than mild, ſimple fever, but if neglected in the common way, from want of obſervation, or in the plea of neceſſity, the diſeaſe either becomes inflammatory and of inſtant danger, or degenerates into that ſpecies of fever which uſually terminates in yellows or jaundice.

Simple fever, taken in time, ordinarily ſubmits, in three days, to a courſe of medicine and treatment nearly ſimilar to that recommended in a ſlight caſe of warm catarrh. Bleed agreeable to diſcretion as to quantity, give a drink of nitre, cream of tartar and honey, from one to two ounces of the two former, each a like quantity, in three pints of a warm decoction, or infuſion of any, or as many of the febrifugal herbs as can be readily obtained, twice a day; plying the horſe in the interim with as much of ſuch infuſion as he will take in his water, or if neceſſary, drenching him with it. The chief of theſe herbs are, ſcordium, or water germandes, pennyroyal, balm, ſage, ſweet fennel, chamomile, agrimony, pellatory, ſorrel, mallows, and dandelion, the whole plant with the roots; which laſt ſtands recommended by BOYLE as a febrifuge. The efficacy of theſe herbs, in this caſe, is by no means equivocal or contemptible; but if none can be conveniently obtained, give the medicine in gruel.

If inflammatory ſymptoms ſupervene, with violent pulſation, and throbbing in the arteries, ſo as even to be viſible, bleed according to the directions in the article on Bleeding, and continue the uſe of the lancet at intervals, whilſt the inflammation continues. Give the above medicine in an increaſed doſe. Suppoſe, one ounce and a half of nitre, and half an ounce cremor tartar, to two ounces and half nitre, and one ounce cremor tartar; according to the ſize and ſtrength of the horſe, every four hours. Back-rake, and give firſt a common clyſter; if the coſtiveneſs continue, with difficulty of ſtaling, give a purgative and diuretic clyſter.

The following neutral mixture, from BARTLET, may alſo be made trial of, two or three times a day, a pint each time. Ruſſia pearl-aſhes, one ounce; diſtilled vinegar, one pint; ſpring water, two pints; honey, four ounces. Or, at one period each day, ſubſtitute for the nitre drink, the following: Infuſion or decoction of rue and chamomile, rather ſtrong, three pints; antimonial wine, one ounce; camphor and caſtor, each one drachm; contrayerva fine powder, half an ounce. Waſh the horſe's mouth and throat with white water. It is with horſes which are high fed, and have been neglected as to exerciſe and evacuations, and in conſequence full of rich and ſpirituous blood, that the diſeaſe attains this ardent and inflammatory ſtate; being neglected, it terminates fatally in a very ſhort period; but the early application of the method juſt recommended, ſeldom fails of ſucceſs, becauſe patients ſubject to this exalted ſpecies of fever are generally found in body, and have good ſtamina.

SOLLEYSEL notices a fever, which he calls a *Palpitation of the Heart*; the diagnoſtics, violent heaving of the flanks, and laborious reſpiration. He adviſes one remedy, which no man in his wits will adopt; namely, to let the horſe blood in the neck-vein, and then keep him an hour ſtanding up to the neck in water. It is ſometimes the forerunner of a broken wind, or in a broken-winded horſe, the ſign of exacerbation of the diſeaſe, and approach to its worſt ſtage. Bleedings. Neutral ſalts, with infuſions of the herbs as before. Tar water.

There is a low, inirritative fever, attended with great debility, with which horſes are often ſeized very ſuddenly.

Fever may ariſe from eating unwholeſome food, or the conſtant uſe of foul water. Mouldy and rotten hay and garbage, muſty corn or bran, ſoft beans,

beans, or too many even of the beſt beans: all have a tendency to produce an improper and feveriſh blood.

Contagious Fever is either mild or peſtilential, according to the degree of virulence in the exhalation inſpired. In the firſt caſe, it is extremely probable that the animals affected have all received the contagion from one common ſource, the air; and not from infection one of the other, the contagious material not being ſufficiently ſtrong for that end. In peſtilential and putrid fevers, ulcers, abſceſſes, or buboes, are formed, where freſh matter is generated, capable of reproducing infection. Dr. DARWIN ſuppoſes, "that the matter of all contagious diſeaſes, whether with or without fever, is not infectious, till it has acquired ſomething from the air, which by oxygenating the ſecreted matter, may probably produce a new acid." Perhaps all it acquires is, emiſſion for the miaſmata, and liberty of action, ſince the moſt noxious vapour confined is perfectly impotent.

In *Epidemic*, or *Malignant Fever*, the pulſe is ſeldom or never very high, as perhaps the bare impetus of the blood, in an inflammatory ſtate, would itſelf reſiſt the tendency to putrefaction, at leaſt for a time. The diagnoſtics are, ſlow fever, with languor and great depreſſion, irregularity of pulſe, with alternation of heat and cold. Eyes dull and moiſt, with moiſture and foulneſs in the mouth, faint appetite, with feeble motion of the jaws, accompanied with an unpleaſant grating of the teeth. Excrement frequently dropping in a looſe and rotten ſtate. Staling irregular, ſometimes very little and with difficulty; at others, the urine pours down ſuddenly in large quantities, pale, without ſediment. Watchfulneſs and continual ſtanding. Sometimes a diſcharge of a browniſh diſagreeable colour iſſues from the noſtrils, but in ſmall quantity.

The cure uſually commences with bleeding, but it ought to be in a moderate quantity, and in this caſe does not always require repetition. Should the hide of the horſe feel much clung together, and bound, inſert a rowel or two. Clyſters as before, according to the neceſſity, that the body may be kept properly open: Alſo give the following ball twice a day, and at convenient intervals, a few pints of the infuſion of herbs, acidulated with cremor tartar. Diaphoretic antimony, four drachms; camphor, one drachm; myrrh and Virginian ſnake-root, powdered, each two drachms; make the ball with ſyrup of ſaffron. In caſe of hoarſeneſs, rattling in the throat, or cough, more blood may be drawn. Watch the diſcharge from the noſtrils, which may be critical, and encourage it with warm clothing upon the head and throat. It may be obſerved that the diaphoretic antimony is pretty nearly the ſame thing with Dr. JAMES's famous powder, and the above ball and treatment rarely fails, even in caſes of much apparent danger; but for the farther ſatisfaction of the reader, I will inſert certain other forms in the ſame intent. Diaphoretic antimony being a uſeful fever powder and alterat for cattle, I have given the receipt for thoſe who chuſe to prepare it themſelves, and alſo a preparation of ſimilar intent, much recommended by OSMER; the efficacy and ſudden good effect of which I once ſaw, in a horſe ſeized with a kind of influenza ſome years ago.

Diaphoretic Antimony. Mix powdered antimony with three times its weight of nitre, and gradually put the maſs into a crucible juſt beginning to glow; then, the mixture being taken from the fire, let it be purified by waſhing with water, as well from the ſalts, as from the groſſer parts leſs perfectly calcined.

TOUNEFORT's *Fever Powder.* Hartſhorn ſhavings half a pound, boil in ſpring water full an hour; then place them in a diſh before the fire, till dry enough to powder. Mix them with an equal quantity of antimony, both in powder; put the mixture in an unglazed earthen pan over a ſlow fire, and keep it ſtirring with an iron ſpatula to prevent its caking together; when it ceaſes to ſmoke, the proceſs is finiſhed, and there will remain an aſh-coloured powder. If deſired more white, calcine awhile in a red-hot crucible. Doſe from one to two drachms, in a ball with honey and liquorice powder, twice a day, waſhed down with a horn or two of decoction of ſcordium, or the infuſion of herbs, or gruel, as before. Nitre in about double the quantity of the antimony, may be deflagrated in the crucible with it and the hartſhorn; and if to the powder there be added calcined mercury, in the proportion of a ſcruple of the mercury to two drachms, a moſt potent medicine will be produced. Keep it cloſe ſtopped up in a glaſs.

Fever Drink from BARTLET. Contrayerva and ſnake-root, two ounces each; liquorice-root, ſliced, one ounce; ſaffron, two drachms; infuſe in two quarts boiling water, cloſe covered, two hours; ſtrain off, and add half a pint diſtilled vinegar; four ounces ſpirit of wine, in which half an ounce camphor has been diſſolved, and two ounces Venice treacle; doſe, one pint, every four, ſix, or eight hours. In caſe of cough and ſoreneſs of the breaſt, give frequently three ounces cold drawn linſeed oil, ſame quantity honey; one ounce ſalt or cream of tartar in an infuſion of rue and chamomile.

In the worſt ſpecies of *putrid* or *peſtilential fever* in horſes, the diagnoſtics are as follow:—Dimneſs, with a glazed and lifeleſs appearance in the eyes, and a diſcharge from them; running at both the noſe and mouth of a brown or greeniſh colour, and fœtid ſmell, which ſticks to the noſtrils; no appetite, particularly to drink; putrid breath; exceſſive debility, ſo as to ſtagger when led; trembling; uneven pulſe; generally low; ſkin ſometimes hot, then ſuddenly cold; ſwelled glands; tumours to be felt under the ſkin in various parts; ſwelled joints; diarrhæa, or ſcouring of offenſive matter dark in colour, of the diſcharge of which the horſe ſeems ſcarce ſenſible.

As to the prognoſtics, putrefaction ſometimes proceeds ſo rapidly, owing perhaps to a previous depraved ſtate of the humours, that medicine ſeems to make no ſenſible effect, and death happens in a day or two.

FEVER IN SHEEP. This diſorder firſt ſhews itſelf by an inflammation in the eyes and mouth; the feet grow hot at the ſame time, and they are uneaſy and reſtleſs. The uſual cauſes of this diſorder are cold and wet feeding, and, when the whole flock is diſtempered

 together,

together, as is sometimes the case, it is as fatal almost as the rot.—CURE.

They must be removed to a piece of high dry ground, and have shelter. Those that are ill must be first blooded; after which give them the following medicine:—

Dissolve half an ounce of mithridate in a pint of warm ale; divide this into two doses, and give one at night, and the other in the morning. If two doses do not produce a good effect, add ten grains of powder of contrayerva to each dose following, and in general two or three days will complete the cure.

FEVER IN ASSES: the following is considered an excellent remedy:—

Get two ounces of the juice of parsley, put it into a glass of white-wine or beer, which you can most conveniently get, dissolve it in half an ounce of mithridate; keep him warm, bleed, and feed him with good warm mashes.

FEVER IN CATTLE. A fever may be taken in the heat of summer, by driving or hard labour, or by drinking cold water when they are exceeding hot, and so cause a shaking on them at first, and afterwards produce a fever. They will be very heavy in the head, have swoln eyes, an extreme heat in their bodies, and their hair will stand of a sweat upon their backs.

You must cut some grass, and give them some lettice among it, to cool their bodies, and the next morning let them blood in the neck-vein; then give them the juice of parsley blended with gum-dragant, aniseeds, the powder of damask-roses, and put it into a quart of strong ale, sweetening it with honey; then blend all together, and give it them three mornings one after another milk-warm: keep them warm, and they will mend presently.

Cattle may also get the fever in winter as well as in summer, (if the beast be low in flesh) by drinking cold water, especially in a morning, they will begin to shake and tremble; and, if they catch the fever, they will tremble, have heavy eyes, and groan and froth at the mouth.

First let them blood, then give them a quart of ale, four roots of plantane and two spoonfuls of the best London treacle; then sprinkle their meat with water, and they will recover.

FIANTS, } The dung of deer.
FAUNTS, }

FIG IN HORSES. A disease that takes its name from a wart or broad piece of flesh, growing upon the frush towards the heel, resembling a fig in shape.

It proceeds from some hurt received in the foot, that has not yet been thoroughly cured: or by a stub or nail, bone, thorn, or stone, and sometimes by an overreach upon the heel or frush.

The best method of treating them all is, to cut them as clean away as possible; and if any part is left behind, which was not easy to come at with the knife, touch it with a caustic; and if that fails to destroy the small remains, secure a bit of sublimate upon it. When the root is fairly cleared away, and not before, wash the part daily with the following:—

Take of galls, alum, and white vitriol, in powder, each two ounces; boil them a few minutes in four pints of lime-water; and, when cool enough, pour off the clear liquor, into a bottle, for use.

If any of the root remains, it will grow, and the cure is as far off as before it was begun.

If, in cutting these excrescences, an artery should be wounded, or a profuse bleeding come on, a dossil of lint may be pressed over the orifice of the bleeding vessels; over this lay other pledgets of tow, secure them closely, and in such a quantity, as that a due pressure on the part may be made by the bandage: remove the dressings in two or three days, but not wholly: leave the dossil of lint which is next to the wounded vessels to digest away; if it adheres at all, cover it up as before with pledgets, secured as at the first, to prevent a fresh bleeding. After the first removal of the dressings, continue to examine and dress the part every day.

FIGGING. *See* WARRANTRY.

FILANDERS, a disease incident to hawks, of which there are several sorts; but that which demands our greatest attention, is the one that sticks to the reins. They are worms as small as a thread, and about an inch long, which lie wrapt up in a thin skin, or net, near the reins, apart from either gut or gorge.

You may know when a hawk is troubled with the filanders by her poverty, by her ruffling her train, by her straining the fist or perch with her pounces, and lastly by croaking in the night when the filanders prick her.

This malady must be remedied betimes, before these worms have enlarged themselves, from their proper station roving elsewhere, to the ruin and destruction of the hawk.

They must not be killed as other worms are, for fear of impostumes from their corruption, being incapable of passing away with the hawk's mewt, but only stupify them, that they may be offensive but seldom, which is to be done as follows:—

Take a head of garlic, peel off the outermost rind, then having a bodkin heated in the fire, make holes in some cloves, which steep in oil for three days, and after this give her one of the cloves down her throat, and for forty days after the filanders will not be troublesome to her.

Therefore it will be the prudence of the falconer, when seeing the hawk poor and low, to give her once a month a clove of this garlic by way of prevention.

Or, boil half a dozen cloves of garlic in milk, till they are tender, then take them out and dry the milk out of them, and afterwards put them into a spoonful of the best oil of olives you can get, and when she hath cast in the morning give these to the hawk; feed her in two hours after, and let that be warm meat, and not much of it, and keep her warm that day for fear of taking cold; give her the oil with the garlic. They must steep all night.

FILLETS. The loins of a horse, which begin at the place where the hinder part of the saddle rests.

FILLY. A term among horse-dealers, to denote the female or mare colt.

FILM WHITE UPON THE EYE OF A HORSE, may be removed by lifting up the eye-lid, after the eye has been washed with wine, and stroaking it gently with one's thumb, with wheat flour: also common salt, or salt of lead, beaten fine and put into the eye is proper to consume a film; or you may wash the horse's eye with your spittle in the morning fasting, having first put a little salt into your mouth: but there is nothing so effectual as sal-ammoniac beaten and put into the eye, and repeated every day till the film is gone.

FIMASHING. The dunging of any sort of wild beasts.

FIRE. To give the fire to a horse, is to apply the firing iron red hot to some preternatural swelling, in order to discuss it; which is oftentimes done by clapping the firing iron to the skin without piercing through.

We give fire to farcy knots by running a pointed burning iron into the ulcer.

We likewise give fire for wrenches of the pasterns.

FIRING IRON is a piece of copper or iron about a foot long, one end of which is made flat, and forged like a knife, the back of it being half an inch thick, and the fore edge about five or six times thinner.

When the farrier has made his firing iron red hot in the forge, he applies the thinnest part to the horse's skin, and so gives the fire to the hams, or such places as stand in need of it.

FISH. As to the quality of breeding them, it is scarce to be found out by any certain symptom; for some very promising ponds do not always prove serviceable: one of the best indications of a breeding pond is, when there is good quantity of rush and grazing about it, with gravelly shoals, such as horse-ponds usually have; so that when a water takes thus to breeding, with a few milters and spawners, two or three of each, a whole country may be stocked in a short time. Eels and perch are of very good use to keep down the stock of fish; for they prey much upon the spawn and fry of bred fish, and will probably destroy the superfluity of them. As for pike, perch, tench, roach, *&c.* they are observed to breed in almost any waters, and very numerously; only eels never breed in standing waters that are without springs; and in such are neither found nor increase, but by putting in; yet where springs are, they are never wanting, though not put in. And, which is most strange of all, no person ever saw in an eel, the least token of propagation, either by milt or spawn; so that whether they breed at all, and how they are produced, are questions equally mysterious, and never as yet resolved.

For the method of feeding fish, take the following remarks:—1. In a stew, thirty or forty carps may be kept up from *October* to *March*, without feeding; and by fishing with tramels or stews in *March*, or *April*, you may take from your great waters to recruit the stews; but you must not fail to feed all summer, from *March* to *October* again, as constantly as cooped chickens are fed, and it will turn to as good an account.

2. The care of feeding is best committed to a butler or gardener, who should be always at hand, because the constant and regular serving of the fish, conduces very much to their well eating and thriving.

3. Any sort of grain boiled is good to feed with, especially pease, and malt coarse ground; the grains after brewing while fresh and sweet are very proper; but one bushel of malt not brewed will go as far as two of grains; chippings of bread, and scraps off a table, steeped in tap droppings of strong beer or ale, are excellent food for carp; of these the quantity of two quarts to thirty carp every day is sufficient, and to feed morning and evening, is better than once a day only.

4. There is a sort of food for fish that may be called accidental, and is no less improving than the best that can be provided; and that is, when the ponds happen to receive the wash of commons, where many sheep have pasture, the water is enriched by the soil, and will feed a much greater number of carp than it otherwise would do; and farther, the dung that falls from cattle standing in the water in hot weather, is also a very great nourishment to fish.

5. More particularly, the most proper food to raise pike to an extraordinary fatness, is eels, and without them it is not to be done but in a long time; otherwise small perches are the best meat you can give them. Bream put into a pike-pond, breed exceedingly, and are fit to maintain pikes, that will take care they shall not increase over much; the numerous fry of roaches and rouds which come from the greater pools into the pikes quarters, will likewise be good diet for them.

6. Pike in all streams, and carp in hungry springing waters, being fed at certain times, will come up and take their meat almost from your hand; and it is a diverting object, to see the greediness and striving that will be among them for the good bits, with the boldness they will attain to by constant and regular feeding.

7. The most convenient feeding place is towards the mouth of the pond, at the depth of about half a yard; for by that means the deep will be kept clean and neat, as it were a parlour to retire to and rest in: the meat, thrown into the water, without other trouble, will be picked up by the fish, and nothing shall be lost; yet there are several ingenious devices for giving them food, especially pease: as a square board let down with the meat upon it by the four corners, whence a string comes, made fast to the end of a stick like a scale, which may be readily managed.

8. When fish are fed in the larger pools or ponds, where their numbers are also great, there will be some expence as well as pains; but as soon as they are taken out, and it appears how they are thriven, you will allow both well employed; either malt boiled or fresh grains is the best food in this case. Thus carp may be fed and raised like capons, and tench will feed as well, but perch are not for a stew in feeding time.

As to the benefits that redound from the keeping of fish, besides furnishing your table, obliging your friends, and raising money, your land will be vastly improved, so as to be really worth, and yield more this way than by any other employment whatsoever: for suppose it to be a meadow at 2*l.* per acre: four acres in pond will return you every year a thousand fed carp, from the

leaſt ſize to fourteen or fifteen inches long; beſides pike, perch, tench, and other fry; the carp are ſaleable, and will bring 6d. 9d. and perhaps 12d. a piece, amounting in all to 25l. which is 6l. 5s. per acre, the charge of carriage only to be deducted.

When a great water is deſigned to be brought, you take the firſt ſpit of the ground upon which the bank is to ſtand, and form the pan of the pond. Now in caſe you convey the earth taken thence to ſome place where it may be eaſily removed upon your tillage land, let it lie there to rot the ſod, and there is not a better manure to be had, being alſo more than pays the charge of digging and carrying it off.

You gain the making of ſtews, and it may be other ponds for the convenience of your cattle, all at one expence; for if you are obliged to dig clay and earth for your bank, it is as eaſily taken where it does this, as otherwiſe.

If the ſoil about the waters be in any wiſe mooriſh, it may be planted with oziers, which yield a certain yearly crop.

The feed of the pond when laid dry, and the corn, *i. e.* oats, which you may have upon the bottom, though mere mud, is very conſiderable.

If cattle graze near your great pools, they will delight to come and ſtand in the water, which conduces much to the thriving of your beaſts, as well as to the feeding of your fiſh by their dunging, as has been already hinted: it is therefore adviſeable to have ponds in cow paſtures and grazing-grounds.

As to the ſowing of oats in the bottom of a pond, take care to dry your great water once in three, or at moſt four years, and that at the end of *January*, or beginning of *March* which (if the year do not prove very unſeaſonable) will be time enough. After *Michaelmas* following, you may put in a great ſtock of fiſh, and thin them in ſucceeding years, as the feed declines. *See* POND HEADS.

Of Fiſh Ponds, Stews, &c.

As to the moſt ſcientific method of making fiſh-ponds, ſtews, *&c.* it is agreed that thoſe grounds are beſt, which are full of ſprings and apt to be mooriſh: the one breeds them well, and the other preſerves them from being ſtolen.

The ſituation of the pond is alſo to be conſidered, and the nature of the currents that fall into it; likewiſe that it be refreſhed with a little brook, or with rain-water that falls from the adjacent hilly ground. Add, that thoſe ponds which receive the ſtale and dung of horſes breed the largeſt and fatteſt fiſhes.

In making the pond, obſerve that the head be at the loweſt part of the ground; and that the trench of the flood-gate, or ſluice, have a good ſwift fall, that it may not be long in emptying.

If the pond carry ſix feet of water, it is enough; but it muſt be eight feet deep, to receive the freſhes and rains, that ſhould fall into it.

It would alſo be advantageous to have ſhoals on the ſides, for the fiſhes to ſun themſelves in, and lay their ſpawn on; beſides in other places, certain holes, hollow banks, ſhelves, roots of trees, iſlands, *&c.* to ſerve as their retiring places. Conſider farther, whether your pond be a breeder: if ſo, never expect any large carps from thence; the greatneſs of the number of *ſpawn* overſtocking the pond.

For large carps a ſtore-pond is ever accounted the beſt: and, to make a breeding-pond become a ſtore-pond, ſee what quantity of carps it will contain; then put in all milters, or all ſpawners, whereby in a little time you may have carps that are both large and exceedingly fat. Thus, by putting in one ſex, there is an impoſſibility of the increaſe of them; yet the roaches, notwithſtanding this precaution, will multiply. Reſerve ſome great waters for the head quarters of the fiſhes, whence you may take, or wherein you may put, any quantity thereof. And be ſure to have ſtews, and other auxiliary waters, ſo as you may convey any part of the ſtock from one to the other, and loſe no time in the growth of the fiſhes, but employ your water, as you do your land, to the beſt advantage. View the grounds, and find out ſome fall between the hills, as near a flat as may be, ſo as to leave a proper current for the water. If there be any difficulty of judging of ſuch, take an opportunity, after ſome ſudden rain, or breaking up of a great ſnow in winter, for you will plainly ſee which way the ground caſts; for the water will take the true fall, and run accordingly.

The condition of the place muſt determine the quantity of the ground to be covered with water. For example, I may purpoſe in all fifteen acres in three ponds, or eight acres in two, and not leſs; and theſe ponds ſhould be placed one above another, ſo as the point of the lower may almoſt reach the head or bank of the upper, which contrivance is no leſs beautiful than advantageous.

The head, or bank, which, by ſtopping the current, is to raiſe the water, and ſo make a pond, muſt be built with the clay and earth taken out of the pan, or hollow, dug in the loweſt ground above the bank: the ſhape of the pan to be half an oval, whereof the flat to come to the bank, and the longer diameter to run ſquare from it.

For two large ponds of three or four acres apiece, it is adviſeable to have four ſtews, each two rods wide, and three long. The ſtews are uſually in gardens, or near the houſe, to be more handy and better looked to. The method of making them, is to carry the bottom in a continual decline from one end, with a mouth to favour the drawing the net.

FISHING-FLIES, are both natural and artificial; the natural are almoſt innumerable, of which I ſhall name only the moſt principal, *viz.* the dun-fly, the ſtone or May-fly, the tawny-fly, the vine-fly, the ſhell-fly, the cloudy and blackiſh fly, the ſtag-fly; alſo caterpillars, canker-flies, bear-flies, *&c.* all which appear either ſooner or later, according as the ſpring proves forward or backward; and theſe flies are all good in their ſeaſon, for ſuch fiſh as riſe at the fly.

The better to know the fly the fiſh covets moſt, when you come to the river ſide in the morning, beat the buſhes with your rod, and take up as many various ſorts as you can, and make a trial of them, and by that

that means you will find which ſort they bite moſt eagerly at; though they will ſometimes change their fly, but this is only when they have glutted themſelves with that ſort they like beſt.

There are two ways of fiſhing with theſe natural flies, *viz.* either on the ſurface of the water, or a little underneath it.

If you angle for chevin, roach, or dace, move not the natural fly ſwiftly when you ſee the fiſh make at it, but rather let it glide freely towards him with the ſtream; but if it be in a ſtill and ſlow water, draw the fly ſlowly ſide-ways by him, and this will cauſe him to purſue it eagerly.

As for the artificial fly it is ſeldom uſed but in bluſtering weather, when the waters are ſo diſturbed by the wind, that a natural fly cannot well be ſeen, nor reſt upon them.

There are twelve ſorts of dubs or artificial flies, of which theſe that follow are the principal:—

1. For *March*, the dun-fly; made of dun wool, and the feathers of the partridge's wing; or the body made of black wool and the feathers of a black drake.

2. For *April*, the ſtone-fly; the body made of black wool, dyed yellow under the wings and tail.

3. For the beginning of *May*, the ruddy-fly; made of red wool, and bound about with black ſilk, with the feathers of a black capon hanging dangling on his ſides, next his tail.

4. For *June*, the greeniſh fly; the body made of black wool, with a yellow liſt on either ſide, the wings taken off the wings of a buzzard, bound with black broken hemp.

5. The mooriſh-fly, the body made of duſkiſh wool, and the wings of the blackiſh mail of a drake.

6. The tawny-fly good till the middle of *June*; the body made of tawny wool, the wings made contrary one againſt the other, of the whitiſh mail of a white drake.

7. For *July*, the waſp-fly; the body made of black wool, caſt about with yellow ſilk, and the wings of drakes feathers.

8. The ſteel-fly, good in the middle of *July*; the body made with greeniſh wool, caſt about with the feathers of a peacock's tail, and the wings made of thoſe of the buzzard.

9. For *Auguſt*, the drake-fly; the body made with black wool caſt about with black ſilk, his wings of the mail of a black drake, with a black head. *For the different kinds of Fiſh, and Directions for taking them, ſee each under their proper Article; as for* CARP-FISHING *ſee* CARP. *And for* FLY-FISHING *ſee the different Months*, April, Auguſt, *&c.*

Directions for artificial Fly-Fiſhing.

1. Fiſh in a river that has been ſomewhat diſturbed by rain, or in a cloudy day, when the waters are moved by a gentle breeze; if the winds be gentle, the beſt angling will be in ſwift ſtreams, but if it blows ſomewhat ſtrong, but not ſo but that you may conveniently guard your tackle, the fiſh will riſe in plain deeps.

2. Always angle with a ſmall fly and clear wings, in clear rivers; but uſe larger in muddy places.

3. Keep at as good diſtance from the water-ſide as you can, and fiſh down the ſtream with the ſun at your face, and touch not the water with your line.

4. When the water becomes browniſh after rain, uſe an orange-fly; and in a clear day, a light coloured fly; and a dark fly for dark waters, *&c.*

5. Have ſeveral of the ſame of every ſort of fly, differing in colour, to ſuit the colours of ſeveral waters and weathers.

6. Let the fly fall firſt into the water, and not the line, which will be apt to fright the fiſh.

7. Let your line be twice the length of your rod, unleſs the river be encumbered with wood.

8. In ſlow rivers, or ſtill places, caſt the fly over croſs the river, and let it ſink a little in the water, and draw it gently back with the current.

9. Make uſe of a quick eye and nimble hand, to ſtrike preſently with the riſing of the fiſh, leſt he ſhould have time to ſpew out the hook.

Every one that delights in fly-fiſhing, ought to learn the way of making two ſorts of artificial flies, the palmer, ribbed with ſilver or gold, and the May-fly.

In making of the palmer-fly, you muſt arm your line on the inſide of the hook, and cut off ſo much of a mallard's feathers to make the wings.

Then lay the outermoſt part of the feather next the hook, and the point of the feather towards the ſhank of the hook, whip it three or four times about the hook with the ſame ſilk you armed your hook, and make the ſilk faſt.

Take the hackle of the neck of a cock or capon, (but a plover's top is beſt) and take off one ſide of the feather, and then take the hackle, ſilk, or gold or ſilver thread, and make all theſe faſt at the bent of the hook, working them up to the wings, ſhifting your fingers every turn and making a ſtop, then the gold will fall right, which make faſt.

After this, take the hook betwixt your finger and thumb, in the left hand, and with a needle or pin part the wings in two, then with the arming ſilk (having faſtened all hitherto) whip it about as it falls acroſs between the wings, and with your thumb turn the point of the feather towards the bent of the hook, then work it three or four times about the ſhank, and faſten it; and view the proportion for other flies.

If you make the grounds of hog's-wool, ſandy, black, or white, or bear's wool, or of a red bullock; work theſe grounds on a waxed ſilk, and arm and ſet on the wings as before directed.

The body of the May-fly muſt be wrought with ſome of theſe grounds, which will be admirably well, when ribbed with black hair or ſilk.

Others make them with ſandy hog's wool, ribbed with black ſilk, and winged with a mallard's feather, according to the angler's fancy.

The oak-fly muſt be made with orange tawny, or orange coloured crewel, and black for the body; and the brown of the mallard's feathers for the wings.

Laſtly,

Laſtly, there is another fly, the body of which is made of the ſtrain of a peacock's feather.

March is the month to begin to angle with the fly, but if the weather prove windy or cloudy, there are ſeveral ſorts of palmers that are good at that time: the firſt is a black palmer, ribbed with ſilver; the ſecond, a black palmer with an orange tawny body; thirdly, a palmer whoſe body is all black; laſtly, there is a red palmer, ribbed with gold, and a red hackle mixed with orange crewel.

Obſerve, that the lighteſt flies are for cloudy and dark weather, and the darkeſt for bright and light, and the reſt for indifferent ſeaſons.

Salmon-flies ſhould be made with their wings ſtanding one behind the other, whether two or four, and of the gaudieſt colours that can be, for he delights in ſuch; and this chiefly in the wings, which muſt be long as well as the tail.

You are to note that there are twelve kinds of artificial made flies to angle with upon the top of the water. Note by the way, that the fitteſt ſeaſon of uſing theſe, is a bluſtering windy day, when the waters are ſo troubled that the natural fly cannot be ſeen, or reſt upon them. The firſt is the dun-fly in *March*, the body is made of dun-wool, the wings of the partridge's feathers. The ſecond is another dun-fly, the body of black wool, and the wings made of the black drake's feathers, and of the feathers under his tail. The third is the ſtone-fly in *April*, the body is made of black wool made yellow under the wings, and under the tail, and ſo made with the wings of the drake. The fourth is the ruddy fly in the beginning of *May*, the body made of red wool wrapt about with black ſilk, and the feathers are the wings of the drake, with the feathers of a red capon alſo, which hang dangling on his ſides next to the tail. The fifth is the yellow or greeniſh fly, in *May* likewiſe, the body made of yellow wool, and the wings made of the red cock's hackle or tail. The ſixth is the black fly, in *May* alſo, the body made of black wool, and lapt about with the herle of a peacock's tail; the wings are made of the wings of a brown capon, with his blue feathers in his head. The ſeventh is the ſad yellow fly in *June*, the body is made of black wool, with a yellow liſt on either ſide, and the wings taken off the wings of a buzzard, bound with black braked hemp. The eighth is the mooriſh-fly, made with the body of duſkiſh wool, and the wings made of the blackiſh mail of the drake. The ninth is the tawny-fly, good until the middle of *June*, the body made of tawny wool, the wings made contrary one againſt the other, made of the whitiſh mail of the wild drake. The tenth is the waſp-fly in *July*, the body made of black wool, lapt about with yellow ſilk, the wings made of the feathers of the drake or of the buzzard. The eleventh is the ſhell-fly, good in *Mid-July*, the body made of greeniſh wool, lapt about with the herle of a peacock's tail, and the wings made of the wings of a buzzard. The twelfth is the dark drake-fly, good in *Auguſt*, the body made with black wool, lapt about with black ſilk; his wings are made with the mail of zin-bag, the peacock's feather, and grounds of ſuch wool and crewel as will make the graſshopper; and note, that uſually the ſmalleſt flies are the beſt; alſo, that the light fly does uſually make moſt ſport in a dark day, and the darkeſt and leaſt fly in a bright or clear day: laſtly, that you are to repair upon any occaſion to your magazine-bag, and vary and make them lighter or darker according to your fancy or the day.

The *May*-fly may be found in and about that month, near to the river-ſide, eſpecially againſt rain; the oak-fly on the butt or body of an oak or aſh, from the beginning of *May* to the end of *Auguſt*; it is a browniſh fly, and eaſy to be found, and ſtands uſually with his head downwards towards the root of the tree; the ſmall black-fly, or hawthorn-fly, is to be had on any hawthorn-buſh after the leaves are off: with theſe and a ſhort line, you may dape or dop, and alſo with a graſshopper behind a tree, or in any deep hole, ſtill making it to move on the top of the water as if it were alive, and ſtill keeping yourſelf out of ſight, you will certainly have ſport if there be trout.

Mr. Best ſays, there are two ſalmon flies, which are the principal ones, called the Dragon and the King's-fiſher, about two inches long, which may be made according to fancy, but of the moſt gaudy feathers there are, eſpecially the peacock's, for they will riſe at any thing gaudy, and, where they are plenty, at trout flies.

There are likewiſe two moths, great killers about twilight in a ſerene evening, and the humble-bee a famous chub-killer any time of the day. They are dubbed in the following manner: the brown moth, the wings of the feather of a brown owl; dubbed with light mohair, with a dark grizzle cock's hackle for the legs, and a red head. The white moth, dubbed with the white ſtrands of an oſtrich's feather; wings of the feather of a white pigeon's wing; a white hackle for the legs, and a black head.

The humble-bee; dubbed with black ſpaniel's fur; a black cock's hackle over that; the tag of the tail to be of a deep orange colour, and the wings of the feather of a crow's wing.

Paſtes for fiſhing are variouſly compounded, almoſt according to the angler's own fancy; but there ſhould always be a little cotton wool, ſhaved ſint, or fine flax, to keep the parts together, that it may not fall off the hook. White bread and honey will make a proper paſte for carp and tench: fine white bread alone, with a little water, will ſerve for roach and dace; and mutton ſuet, and ſoft new cheeſe, for a barbel. Strong cheeſe, with a little butter, and coloured yellow with ſaffron, will make a good winter paſte for a chub.

To make the Palmer and May-Fly.

In the firſt place, lay all the materials by the ſide of you, as follow: half a yard of fine round even ſilk-worm gut; half a yard of red ſilk, well waxed with wax of the ſame colour; a hook; a needle; ſome ſtrands off an oſtrich's feather, and a fine red hackle; then take the hook, and hold it by the bent between the fore-finger and thumb of your left hand, and with the point and beard of the hook not under your fingers, but nearly parallel with the tops of them; afterwards take

take the silk and hold it likewise about the middle of it with your hook, one part laying along the inside of it to your left hand, the other to the right; then take that part of the silk which lies towards your right hand, and, holding that part towards your left tight along the inside of the hook, whip that to the right three or four times round the shank of the hook towards the right hand; after which take the silk-worm gut, and lay either of its ends along the inside of the shank of the hook, till it come near the bent of it; then hold the hook, silk, and gut, tight between the fore-finger and thumb of your left hand, and afterwards give that part of the silk to your right hand three or four times more over both hook and gut till it comes near the end of the shank, and make a loop and fasten it tight; then whip it neatly again over both silk and gut, and hook, till it comes near the bent of the hook, after which make another loop, and fasten it again; then, if the gut should reach further than the bent of the hook, cut it off, and your hook will be whipped on, and the parts of the silk hang from the bent of it.

Having proceeded so far, wax the longest end of the silk again, and take three or four strands of an ostrich's feather; and holding them and the hook as in the first position, the feathers to the left hand, and the roots of them in the bent of the hook, with the silk that you waxed last, whip them three or four times round; make a loop, and fasten them tight: then turning the strands to the right hand, and twisting them and the silk together with the fore-finger and thumb of your right-hand, wind them round the shank of the hook till you come to the place where you first fastened, then make a loop, and fasten them again; if the strands should not be long enough to wind as far as is necessary round the shank, when the silk gets bare you must twist others on it. Having performed this, take your scissars, and cut the body of the palmer into an oval form, that is, small at the bent and the end of the shank, but full in the centre; do not cut too much of the dubbing off. Now both the ends of the silk are separated, one at the bent, another at the end of the shank, wax them both again; then take the hackle, hold the small end of it between the fore-finger and thumb of your left hand, and stroke the fibres of it with those of your right, the contrary way from which they are formed; hold your hook as in the first position, and place the point of the hackle in its bent, with that side which grows nearest the cock upwards; and then whip it tight to the hook; but in fastening it, tie as few fibres in as you can possibly avoid: the hackle being fast, take it by the great end, and, keeping the side nearest the cock to the left hand, begin with your right hand to wind it up the shank upon the dubbing; stopping every second turn, and holding what you have wound tight with your left fingers, whilst with the needle you pick out the fibres you will unavoidably take in; proceed in this manner till you come to the place where you first fastened, and where an end of the silk is; then clip off those fibres of the hackle which you held between the finger and thumb, close to the stem; and hold the stem close to the hook; after that take the silk in your right hand, and whip the stem very fast to the hook; then make a loop, and fasten it tight: take your penknife, and, if that part of the stem next the shank of the hook is as long as that of the hook which is bare, pare it fine, wax your silk, and bind it neatly on the remaining bare part of the hook; then fasten the silk tight, and spread some shoe-maker's wax very lightly on your last binding; after that clip off the ends of the remaining silk, both at the shank and bent of the hook, and all fibres that start or stand ill-conditioned, and the whole is completed. This is called the palmer-fly, or plain hackle, and may, instead of the ostrich's feather above-mentioned, be dubbed with black spaniel's fur, and is an excellent killer. There are three more palmers, which are all to be made in the same manner as I have laid down, only with different articles, which are as follow: When you make the palmer-fly, suit the colour of the silk to the hackle you dub with; a dun hackle requires yellow silk; a black hackle, sky-blue silk; a brown or red hackle, red silk; when you make flies that are not palmers, dub with silk that resembles the colour most predominant in the fly; and, in making your flies, remember to mix bear's hair and hog's down with your other dubbing, because they repel the water; make your flies always in hot sun-shiny weather, for your waxed silk will then draw kindly, and when you take the dubbing to imitate a fly always wet it, and then you will be perfect in your imitation; for, though the dubbing when dry may suit, when it is wet it may be quite another colour. Martern's fur is the best yellow you can use.

Great Palmer, or *Hackle*. Dubbed the same as the plain hackle with the strands off an ostrich's feather, or a black spaniel's fur, and warped with red peacock's hackle untrimmed, that is, leaving the whole length of the hackle staring out (for sometimes the fibres of the hackle are to be shortened all over, sometimes barbed only a little, and sometimes close underneath) leaving the whole length of fibres on the top or back of the fly, which makes it swim better, and, on a whirling round water, kills great fish.

Golden Palmer, or *Hackle*. The same dubbing, ribbed with gold twist, and a red hackle over all.

Silver Hackle. Made with a black body also, silver twist over that, and a red hackle over all.

The variation that is to be observed in making the gold and silver palmers, is this, that, when you whip the end of the hackle to the bent of the hook, you must also do the same to the gold or silver twist, and first wind either of them on the dubbing, observing that they lie flat on it, and then fasten off; afterwards proceed with the hackle as directed: or you may wind the hackle on the dubbing first, and rib the body with either of the twists afterwards.

These are the standard hackles in fly-fishing, and are taken any month in the year from nine to eleven in the morning, and from one to three in the afternoon, and upon any water; though you must have different sizes of them, and dubbed with different colours, that you may always be able to suit either a clear or dark water, or a bright or cloudy atmosphere; observing that small light-coloured flies are for clear waters and skies, and the larger for dark and cloudy ones. The angler should

ſhould always try the palmers firſt, when he fiſhes in a river that he is unaccuſtomed to; even in that which he conſtantly uſes, without he knows what fly is on the water, and they ſhould not be changed till he does.

Salmon Fishing.

The female ſalmon is diſtinguiſhed from the male becauſe its noſe is longer and more hooked, its ſcales not ſo bright, and its body ſpeckled over with dark-brown ſpots; its belly flatter, and its fleſh not ſo red; more dry, and leſs delicious to the taſte. You muſt fiſh for him as for a trout, with a worm, fly, or minnow; a lob-worm is an excellent bait for him, well ſcoured in moſs, which makes it tough, clear, and lively. When you have ſtruck him, he will plunge and bounce in the water very much; therefore it is neceſſary to have a ſtrong rod, ringed the ſame as a trolling rod, and a winch with a ſtrong line on it forty yards long, with which length, and proper playing him, you may kill the largeſt ſized one. He has not a conſtant reſidence like a trout, but removes often, and you ſhould always angle for him as near the ſpring head as poſſible, in the deepeſt and broadeſt parts of the river, near the ground. Put two large lob-worms on at a time, and you may fiſh without a float, that is, with a running line. Let one yard next to your hook be gimp, and your hook a proper ſized ſalmon hook.

The Trout.

The trout is a fine freſh-water fiſh, ſpeckled with red and yellow; coming in and going out of ſeaſon with the buck, and ſpawning in the cold months of *October* and *November*, whereas all other fiſhes ſpawn in the hot ſummer months. There are ſeveral ſpecies of this fiſh, all valued very much: but the beſt are the red and yellow: and of theſe the female, diſtinguiſhed by a leſs head and deeper body, is preferred; by the largeneſs of their backs you may know when they are in ſeaſon, which may ſerve as a rule for all other fiſhes. All the winter long they are ſick, lean, and unwholeſome, and frequently louſy. As the ſpring advances, deſerting the ſtill deep waters, they repair to the gravelly ground, againſt which they continue to rub, till they have got rid of their lice, which are a kind of worm, with large heads; from that time they delight to be in ſharp ſtreams, and ſuch as are very ſwift; where they lie in wait for minnows, *May*-flies, &c. The latter part of *May* they are in the higheſt perfection. He is uſually caught with a worm, minnow, or fly, either natural or artificial; the different baits for him are the earth-worm, dung-worm, and the maggot, or gentle, but the beſt are the lob-worm and brandling. His haunts are, in purling-brooks, running very ſwiftly over chalk-ſtones, gravel, &c. He is oftener taken in the ſide of the ſtream than in it, though the large ones are often caught in the deepeſt part of it. He delights to ſhelter himſelf behind large ſtones, or ſmall banks, that hang over the river, and which the ſtream runs againſt and creates a foam; alſo in the eddies between two ſtreams; his hold is uſually under the roots of trees, and in hollow banks in the deepeſt parts of rivers. When you angle for him at the ground, let the link of your line, next the hook, be the beſt ſilk-worm gut you can provide; and have a niee elaſtic rod which will enable you to ſtrike true; and to feel him when he bites. Angle for him with a running line, and begin at the upper part of the ſtream, carrying your line with an upright hand, and from the hook, leading your line according to the ſwiftneſs of the ſtream. If you bait either with one or two worms, follow the manner of baiting with them which I have laid down in the rules, and you will run on the ground without being entangled.

There is a very killing method likewiſe for a large trout: make a pair of wings of the feather of a land-rail, and point out your hook with one or more caddices; the hook ſhould be briſtled, that is, when you whip on your hook, faſten a hog's briſtle under the ſilk, with the end ſtanding out about a ſtraw's breadth at the head of the hook, from under the ſilk, and pointing towards the line, by which means the head of the caddice will be kept cloſe to the wings; angle with a rod about five yards long, and a line about three; caſt the wings and caddice up the ſtream, which drives it down under the water towards the lower part of the hole; then draw it up the ſtream very gently, though irregularly, at the ſame time ſhaking your rod, and in a few caſts you will be ſure to hook him, if there is one in the hole. You may angle the ſame way with two brandlings. If you uſe two caddices with the wings, run your hook in at the head and out at the neck of the firſt, and quite through the other from head to tail.

The minnow is the moſt excellent of all baits for the trout: when you fiſh for one, chooſe the whiteſt, and middle-ſized ones, theſe being the beſt, and you muſt place them on the hook in ſuch a manner, that being drawn againſt the ſtream he may turn round. The beſt way of baiting with a minnow is this: put your hook in at his mouth, and out at his gill, drawing it through about three inches; then put the hook again into his mouth, and let the point and beard come out at his tail; then tie the hook and his tail about with a fine white thread, and let the body of the minnow be almoſt ſtrait on the hook; then try if it turns well, which it cannot do too faſt. Angle with the point of your rod down the ſtream, draw the minnow up the ſtream by little and little, near the top of the water. When the trout ſees the bait he will come moſt fiercely at it, but be careful not to ſnatch it away, which at firſt you may be apt to do; and never ſtrike till he has turned with the bait. In this way of angling, a ringed rod is to be always uſed, with a winch for your line, which ſhould have two or three ſwivels on it; by which means the minnow will ſpin the better.

The Grayling.

The haunts of the grayling are nearly the ſame as the trout; and in fiſhing for either of them, you may catch both. They ſpawn the beginning of *April*, when they lie moſtly in ſharp ſtreams; in *December* he is in his prime, at which time his head and gills are blackiſh, and his belly dark-grey, ſtudded with black ſpots. He bites very freely, but is often loſt when ſtruck, his mouth being very tender. Angle for him about mid-water, he being much more apt to riſe than deſcend; and when you angle for him alone and not for the trout alſo, uſe a quill float, with the bait about

ſix or ſeven inches from the ground. He takes brandlings, gilt-tails, meadow-worms, gentles, &c. but the moſt excellent bait for him in *March* or *April* is the tag-tail.

The CARP.

Patience is highly neceſſary for every one who angles for carp, on account of their ſagacity and cunning; their haunts are in the deepeſt parts of ponds and rivers, and in the latter where the ſtream runs low. When the weather in *April*, *May*, *June*, *July*, and *Auguſt*, is hot and fine, you cannot be too early or late at the ſport. He ſeldom refuſes the red-worm in *April*, the caddice in *May*, or the graſshopper in *June*, *July*, and *Auguſt*. You muſt angle for him with a ſtrong rod and line, a quill float and ſtrong gut at bottom; the hook in the medium of ſize; it being a leather-mouthed fiſh, he ſeldom breaks his hold, if your tackle is ſtrong, and you play him properly. But whenever you intend to fiſh for him particularly, and in good earneſt, over-night lay in a ground bait of garbage, as chicken's guts, blood mixed with cow-dung, or any coarſe paſte: alſo ale-grains and blood incorporated with clay, and at the ſame time that you throw any of theſe ground-baits in, plumb the ground to two depths (for it is beſt to angle for carps with two rods) one about mid-water, the other four or five inches above the ground. The next morning lay your lines in very cautiouſly, and ſucceſs will attend you. Gentles are very good bait for carp, alſo a paſte made of honey and bread, and one made with bread and water alone, tinctured with red-lead. A green-pea is alſo a very good bait.

The BREAM. See article BREAM.

The PIKE.

The pike likes a ſtill, ſhady, unfrequented water, and uſually lies amongſt or near weeds; ſuch as flags, bulruſhes, candocks, reeds, or in the green fog that ſometimes covers ſtanding waters, though he will ſometimes ſhoot out into the clear ſtream. He is ſometimes caught at the top, and in the middle, and often, eſpecially in cold weather, at the bottom. Pikes are called jacks till they become twenty-four inches long.

The bait for a pike, are a ſmall trout, the loach and miller's thumb, the head-end of an eel, with the ſkin taken off below the fins, a ſmall jack, a lob-worm, and in winter the fat of bacon. And, notwithſtanding what others ſay againſt baiting with a perch, it is confidently aſſerted, that pikes have been taken with a ſmall perch, when neither a roach nor a bleak would tempt them.

Obſerve that all your baits for pike muſt be as freſh as poſſible. Living baits you may take with you in a tin-kettle, changing the water often; and dead ones ſhould be carried in freſh bran, which will dry up the moiſture that otherwiſe would affect and rot them.

Obſerve that, in trolling, the head of the bait-fiſh muſt be at the bent of the hook: whereas, in fiſhing at the ſnap, the hook muſt come out at or near his tail. But the eſſential difference between theſe two methods is, that in the former the pike is always ſuffered to pouch or ſwallow the bait, but in the latter you are to ſtrike as ſoon as he has taken it.

The rod for trolling ſhould be about three yards and a half long, with a ring at the top for the line to run through; you may fit a trolling top to your fly rod, which need only be ſtronger than the common fly-top.

Let your line be of green or ſky-coloured ſilk, thirty yards in length, which will make it neceſſary to uſe the winch, with a ſwivel at the end.

The common trolling-hook for a living bait conſiſts of two large hooks, with one common ſhank, made of one piece of wire, of about three-quarters of an inch long, placed back to back, ſo that the points may not ſtand in a right line, but incline ſo much inwards as that they with the ſhank may form an angle little leſs than equilateral. At the top of the ſhank is a loop left in the bending the wire, to make the hook double, through which is put a ſtrong twiſted braſs wire of about ſix inches long: and to this is looped another ſuch link, but not ſo looſe that the hook and the lower link may have room to play: to the end of the line faſten a ſteel ſwivel.

But there is a ſort of trolling-hook different from that already deſcribed, and to which it is thought preferable, which will require another management; this is no more than two ſingle hooks tied back to back with a ſtrong piece of gimp between the ſhanks; in the whipping the hooks and the gimp together, make a ſmall loop, and take into it two links of chain of about an eighth of an inch diameter; and into the lower link, by means of a ſmall ſtaple of wire, faſten by the greater end, a bit of lead of a conical figure, and ſomewhat ſharp at the point. Theſe hooks are to be had at any fiſhing-tackle ſhops ready fitted up.

This latter kind of hook is to be thus ordered, viz. put the lead into the mouth of the bait-fiſh, and ſew it up, the fiſh will live ſome time; and, though the weight of the lead will keep his head down, he will ſwim with near the ſame eaſe as if at liberty.

But if you troll with a dead-bait, as ſome do, for a reaſon which the angler will be glad to know, viz. that a living bait makes too great a ſlaughter among the fiſh, do it with a hook, of which the following contains a deſcription.

Let the ſhank be about ſix inches long, and leaded from the middle as far as the bent of the hook, to which a piece of very ſtrong gimp muſt be faſtened by a ſtaple, and two links of chain; the ſhank muſt be barbed like a dart, and the lead a quarter of an inch ſquare; the barb of the ſhank muſt ſtand like the fluke of an anchor, which is placed in a contrary direction to that of the ſtock. Let the gimp be about a foot long, and to the end thereof fix a ſwivel: to bait it, thruſt the barb of the ſhank into the mouth of the bait-fiſh, and bring it out at the ſide near the tail: when the barb is thus brought through, it cannot return, and the fiſh will lie perfectly ſtraight, a circumſtance that renders the trouble of tying the tail unneceſſary.

There is yet another ſort of trolling-hook, which is, indeed, no other than what moſt writers on this ſubject have mentioned; whereas the others, here deſcribed, are late improvements: and this is a hook either ſingle

or double, with a long shank, leaded about three inches up the wire with a piece of lead about a quarter of an inch square at the greater or lower end; fix to the shank an armed wire about eight inches long: to bait this hook thrust your wire into the mouth of the fish, quite through his belly, and out at his tail, placing the wire so as that the point of the hook may be even with the belly of the bait-fish, and then tie the tail of the fish with strong thread to the wire: some fasten it with a needle and thread, which is a neat way.

Both with the troll and at the snap, cut away one of the fins of the bait-fish close at the gills, and another behind the vent on the contrary side, which will make it play the better.

The bait being thus fixed, is to be thrown in, and kept in constant motion in the water, sometimes suffered to sink, then gradually raised; now drawn with the stream, and then against it, so as to counterfeit the motion of a small fish in swimming. If a pike is near, he mistakes the bait for a living fish, seizes it with prodigious greediness, goes off with it to his hold, and in about ten minutes pouches it. When he has thus swallowed the bait you will see the line move, which is the signal for striking him; do this with two strong jerks, and then play him.

The other way of taking them, that is, with the snap, is thus;

Let the rod be twelve feet long, very strong and taper, with a strong loop at top to fasten your line to; your line must be about a foot shorter than the rod, and much stronger than the trolling line.

And here it may not be improperly observed, that there are two ways of snapping, viz. with the live and with the dead snap.

For the live snap there is no kind of hook so proper as the double-spring hook. To bait it, nothing more is necessary than to hang the bait-fish fast by the back-fin to the middle-hook, where he will live a long time.

Of hooks for the dead-snap there are many kinds. The plate is a representation of one, which, after repeated trials, has been found to excel all others hitherto known; the description and use of it is as follows, viz. Whip two hooks, of about three-eighths of an inch in the bent, to a piece of gimp in the manner directed for the trolling-hook. Then take a piece of lead of the same size and figure as directed for the trolling-hook above-mentioned, and drill a hole through it from end to end; to bait it, take a long needle, or wire; enter it in at the side, about half an inch above the tail, and with it pass the gimp between the ribs and skin of the fish, bring it out at its mouth; then put the lead over the gimp, draw it down into the fish's throat and press his mouth close, and then, having a swivel to your line, hang on the gimp.

In throwing the bait observe the rules given for trolling; but remember, that, the more you keep it in motion, the nearer it resembles a living fish.

When you have a bite, strike immediately the contrary way to that which the head of the pike lies, or to which he goes with the bait; if you cannot find which way his head lies, strike upright with two smart jerks, retiring backwards as fast as you can, till you have brought him to a landing place, and then do as before directed.

As the pike spawns in *March*, and before that month rivers are seldom in order for fishing, it will hardly be worth while to begin trolling till *April*; after that, the weeds will be apt to be troublesome. But the prime month in the year for trolling is *October*, when the pikes are fattened by their summer's feed, the weeds are rotted, and by the falling of the waters the harbours of the fish are easily found.

Choose to troll in clear, and not muddy, water, and in windy weather, if the wind be not easterly.

Some use in trolling and snapping two or more swivels to their line, by means whereof the twisting of the line is prevented, the bait plays more freely, and, though dead, is made to appear as if alive; which, in rivers, is doubtless an excellent way: but those who can like to fish in ponds or still waters, will find very little occasion for more than one.

The pike is also to be caught with a minnow, for which method take the following directions:

Get a single hook, slender, and long in the shank; let it resemble the shape of a shepherd's crook; put lead upon it, as thick near the bent as will go into the minnow's mouth; place the point of the hook directly up the face of the fish; let the rod be as long as you can handsomely manage, with a line of the same length, cast up and down, and manage it as when you troll with any other bait: if when the pike has taken your bait, he runs to the end of the line before he hath gorged it, do not strike, but hold still only, and he will return back and swallow it; but, if you use that bait with a troll, I rather prefer it before any bait that I know.

In landing a pike great caution is necessary, for his bite is esteemed venomous: the best and safest hold you can take of him is by the head, in doing which, place your thumb and fingers in his eyes.

If you go any great distance from home, you will find it necessary to carry with you many more things than are here enumerated, most of which may be very well contained in a wicker pannier of about twelve inches wide, and eight high, and put into a hawking bag. The following is a list of the most material ingredients: a rod with a spare top, lines coiled up, and neatly laid round in flat boxes; spare links, single hairs, waxed thread, and silk; plummets of various sizes, floats of all kinds, and spare caps: worm-bags and a gentle-box, hooks of all sizes, some whipped to single baits; shot, shoemaker's wax, in a very small gallipot covered with a bit of leather; a clearing ring, tied to about six yards of strong cord, the use of this is to disengage your hook when it has caught a weed, &c. in which case take off the butt of your rod and slip the ring over the remaining joints, and, holding it by the cord, let it gently fall; a landing net, the hoop whereof must be of iron, and made with joints to fold, and a socket to hold a staff. Take with you also such baits as you intend to use. That you may keep your fish alive, be provided with a small hoop-net to draw close to the top, and never be without a sharp knife and a pair of scissars; and if you mean

mean to use the artificial fly, have always your fly-hook with you.

And, for the more convenient keeping and carriage of lines, links, single hairs, &c. take a piece of parchment or vellum, seven inches by ten; on the longer sides set off four inches, and then fold it cross-ways, so as to leave a slip of two inches, or thereabout; then take eight or ten pieces of parchment, of seven inches by four, put them into the parchment or vellum, so folded, and sew up the ends; then cut the flap rounding, and fold it down like a pocket-book; lastly, you may, if you please, bind the ends and round the flap with red tape.

And having several of these cases, you may fill them with lines, &c. proper for every kind of fishing; always remembering to put into each of them a gorger, or small piece of cane, of five inches long, and a quarter of an inch wide, with a notch at each end; with this, when a fish has gorged your hook, you may, by putting it down his throat till you feel the hook, and holding the line tight while you press it down, easily disengage it.

And if you should chance to break your top, or any other part of your rod, take the following directions for mending it:—Cut the two broken ends with a long slope, so that they may fit neatly together; then spread some wax very thin on each slope, and, with waxed-thread, or silk, according as the size of the broken part requires, bind them very neatly together: to fasten off, lay the fore-finger of your left hand over the binding, and with your right, make four turns of the thread over it: then pass the end of your thread between the underside of your finger and rod, and draw your finger away; lastly, with the fore-finger and thumb of your right hand, take hold of the first of the turns, and, gathering as much of it as you can, bind on till the three remaining turns are wound off, and then take hold of the end, which you had before put through, and then draw close.

For whipping on a hook take the following directions; place the hook between the fore-finger and thumb of your left hand, and, with your right, give the waxed-silk three or four turns round the shank of the hook: then lay the end of the hair on the inside of the shank, and, with your right hand whip down; when you are about four turns off the bent of the hook, take the shank between the fore-finger and thumb of your hand, and place the end of the silk close by it, holding them both tight, and leaving the end to hang down, then draw the other part of the silk into a large loop, and, with your right hand turning backwards, continue the whipping for four turns, and draw the end of the silk, which has hung down under the root of your left thumb, close, and twist it off.

To tie a water-knot, lay the end of one of your hairs about five inches or less over that of the other, and through the loop, which you would make to tie them in a common way, pass the long and the short end of the hairs, which will lie to the right of the loop, twice, and wetting the knot with your tongue draw it tight, and clip off the loose hair.

The straw-worm or ruffcoat, I believe, is the most common of any. It is found in the river *Colne*, near *Uxbridge*; the *New River*, near *London*; the *Wandle*, which runs through *Carshalton*, in *Surrey*, and in most other rivers. I am assured respecting the straw-worm, that it produces many and various flies, namely, that which is called about *London* the withy-fly, ash-coloured duns of several shapes and dimensions, as also light and browns; all of them affording great diversion in northern streams.

To preserve caddice, grasshoppers, caterpillars, oak-worms, or natural flies, the following is an excellent method: cut a round bough of fine green-barked withy, about the thickness of one's arm, and, taking off the bark about a foot in length, turn both ends together, into the form of a hoop, and fasten them with a pack-needle and thread; then stop up the bottom with a bung-cork: into this put your baits, tie it over with a colewort-leaf, and, with a red-hot wire bore the bark full of holes, and lay it in the grass every night; in this manner caddice may be kept till they turn to flies. To grasshoppers you may put grass.

But that I may not convey a wrong idea; I consider the ruffcoat to be a species of the caddice inclosed in a husk about an inch long, surrounded by bits of stone, flints, gravel, &c. nearly equal in their size, and most curiously compacted together. This fly is called in the north, large light-brown; in *Ireland* and some other places it has the name of the flame-colour brown; and in most parts of *England*, the fœtid light-brown.

For your float, in slow streams, a neat round goose-quill is proper; but for deep or rapid rivers, or in an eddy, the cork, shaped like a pear, is indisputably the best; which should not in general exceed the size of a nutmeg. Let not the quill which you put through it be more than half an inch above and below the cork; and this float, though some prefer a swan's-quill, has great advantage over a bare-quill; for the quill being defended from the water by the cork, does not soften, and the cork enables you to lead your line so heavily, as that the hook sinks almost as soon as you put it into the water; whereas, when you lead but lightly, it does not get to the bottom till it is near the end of your swim. In leading your line, be careful to balance them so nicely, that the least touch will sink them; some use for this purpose lead in the shape of a barley-corn, but, in my opinion there is nothing better to lead with than shot, which you should always be provided with, ready cleft; remembering, that, when you fish fine, it is better to have on your line a number of small than a few large shot.

By whipping the end of the quill round the plug with fine silk, well-waxed, it not only prevents the water from getting in, but greatly preserves it.

In fishing with a float, your line must be about a foot shorter than your rod; for, if it is longer, you cannot so well command your hook when you come to disengage the fish.

Perch and chub are caught with a float, and also gudgeons, and sometimes barbel and grayling.

For carp and tench, which are seldom caught but in ponds, use a very small goose or duck-quill float; and

for ground bait, throw in every now and then a bit of chewed bread.

Some may chuse to make their own lines; in which case, if they prefer those twisted with the fingers, they need only observe the rules given by the article for that purpose.

When you use the fly, you will find it necessary to continue your line to a greater degree of fineness, in order to make which, refer to the article ANGLING-LINE.

The PERCH.

This fish is bow-backed, like a hog, and armed with stiff gristles, and his sides with dry thick scales. He is a very bold biter, which appears by his daring to venture upon one of his own kind, with more courage than even the ravenous luce. He seldom grows above two feet long, spawns once a year, either in *February* or *March*, and bites best in the latter end of the spring. His haunts are chiefly in the streams not very deep, in hollow banks, a gravelly bottom, and at the turning of an eddy. If the weather is cool and cloudy, and the water a little ruffled, he will bite all day long, especially from eight till ten in the morning, and from three till six in the evening. If there are thirty or forty of them in a hole, they may all be caught at one standing; they are not like the solitary pike, but love to accompany one another, and swim in shoals, as all fishes which have scales are observed to do. His baits are minnows, little frogs, or brandlings, if well scoured; when he bites give him time enough, and you can hardly give him too much, for he is not a leather-mouthed fish; unless you do, he will often break his hold. Angle for him, if you bait with a brandling, with an indifferent strong line, and gut at bottom, and about five inches from the ground. But if you rove for him, with a minnow or frog, (which is a very pleasant way,) then your line should be strong, and the hook armed with gimp, and the bait swimming at mid-water, suspended by a cork float. I, for my own part, always use a troll, that in case a pike should take it, I may be prepared for him. Keep your minnows in a tin kettle, and, when you bait with one, stick the hook through his upper lip, or back fin. If you use the frog, stick it through the skin of his hind-leg. These directions being carefully attended to, will insure the angler success.

The TENCH.

This is a delicious fresh-water fish, has small scales, yet very large and smooth fins, a red circle about the eyes, and a little barb hanging at each corner of his mouth. His haunts are chiefly in ponds amongst weeds; he thrives very ill in clear waters, and covets to feed in foul ones; yet his flesh is nourishing and pleasant. They spawn the beginning of *July*: the proper time to angle for them is early and late in the months of *May* and *June*, the latter end of *July*, and in *August*. You must use a strong line with a gut at bottom; a small quill-float; the depth about two feet. He bites best at red worms, if you dip them first in tar, at all sorts of pastes made up with strong-scented oils, and at one made with the inside of a roll and honey. Also at cad, lob, flag, and marsh, worms, gentles, and soft-boiled bread-grain.

The FLOUNDER.

You may fish all day for the flounder, either in swift streams or in the still deep; but best in the stream, in the months of *April*, *May*, *June*, and *July*. Your line must be a single-haired one, with a small float. Let your bait touch the ground, which may be any sort of small worms, wasps, or gentles. He being a fish but seldom taken with rod and line, to enlarge on the subject would be totally unnecessary.

The CHUB.

This fish is spoken of under the article CHUB. As is also the BARBEL.

The ROACH

Is by no means a delicate fish; the river ones are much better than those bred in ponds. They spawn in *May*, and will bite all day long, if the weather is not in either of the extremes, on the top of the water. Their haunts are chiefly in sandy or gravelly deep waters, delighting to be in the shade. In *April* the baits are cads and worms; in summer white snails or flies; in autumn a paste made of fine white-bread, moulded in your hands with water, and a little cotton added to it, to keep it from washing off the hook; in winter gentles are the best bait for him. You should fish with a line made of single hairs, a quill-float, and the lead about a foot from the hook; and, when you angle for roach, always cast in the ground-bait, made of bran, clay, and bread, incorporated together: and, when you angle with tender baits, strike at the least nibble that is apparent. Sprouted malt, the young brood of wasps, bees dipt in blood, and the dried blood of sheep, are nostrums in this kind of angling.

The DACE, DARE, *and* ELLS,

Are observed under their respective titles.

The GUDGEON.

The gudgeon affords the angler an amazing deal of diversion; being one that bites very free, and when struck is never lost; because he is a leather-mouthed fish. They spawn three or four times in the summer, and their feeding is like the barbel's, in the streams, and on gravel; slighting all manner of flies. Their baits are, chiefly wasps, gentles, and cads, but the small red-worm is best. When you angle for them, be provided with a gudgeon-rake, with which rake the ground every ten minutes; which gathers them together. A single-haired line is best with a quill or cork float, according to the rapidity of the stream, and your bait on the ground. You may angle for him with a running line, by hand, without a float.

The POPE, *or* RUFF.

This fish is small, and rarely grows bigger than a gudgeon; in shape very like the perch, but is better food. His haunts are in the deepest running parts of a gravelly river, the exact bottom whereof, having found by plumbing, bait your hooks with small red-worms, or brandlings; for you may angle with two or three, and have excellent sport. He bites very greedily, and as they swim in shoals, you may catch twenty, or thirty, at one standing, in a cool gloomy day. Always bait

bait the ground with earth, and use the same tackle as for the gudgeon.

The MINNOW, *or* PINK,

Is generally found in *March* or *April*, and remains till the cold weather compels it to retire to its winter-quarters. He is of a greenish or wavy sky-colour, his belly very white, his back blackish, and is a most excellent bait for any of the fish of prey: namely, the pike, trout, perch, &c. His baits are small red worms, wasps, cads, &c.

The LOACH, *or* LOCHE,

Is found in clear swift brooks, and rivulets, and his food is gravel. He is bearded like the barbel, and freckled with black and white spots. You may take him with a small red-worm at ground; he delights to be near the gravel, therefore is hardly ever seen on the top of the water.

The BULL-HEAD, *or* MILLER'S-THUMB.

This fish, on account of its uglines, is in some places called the fresh-water devil; he has a broad head, and a large mouth, no teeth, but his lips are like a file, with which he nibbles at the bait. They spawn in *April*, and are full of spawn most of the summer; are chiefly in holes, or among stones in clear water; but, in winter, they lie in mud like the eel. The worst of anglers may take this fish; for, if you look about the water in a hot day, you may see him sunning himself on a stone; put your hook upon it, baited with a small red worm, and he will take it directly. The taste of this fish is good.

The STICKLEBACK, SHARPLING, *or* BANSTICKLE,

Is a small prickly fish, and not worth the angler's notice, in regard to himself, but that he is an excellent bait for the trout, who will take it sooner than the minnow. His pricks must be broken off, and baited according to the directions given for baiting the minnow, under the description of the trout.

The GUINNIAD.

The guinniad, according to CAMDEN, and others, is peculiar to *Pemble-mere*, in *Cheshire*. "The river *Dee*, (says this author,) which runs by *Chester*, springs in *Merionethshire*, and, as it runs towards *Chester*, it passes through the said *Pemble-mere*, which is a large water, and it is observed that, though the river *Dee* abounds with salmon, and *Pemble-mere* with guinniad, yet there are never any salmons caught in the mere, nor any guinniad in the river."

The RED CHARR, *or* WELCH TORGOCH.

The red charr is a fish whose make is longer and more slender than that of a trout, for one of about eight inches long was no more than an inch and a half broad. The belly, about the breadth of half an inch, is painted with red, in some of a more lively, in others of a paler, colour, and in some, especially the female, it is quite white. The scales are small, and the lateral lines straight. The mouth is wide, the jaws pretty equal, except the lower, which is a little sharper, and more protuberant than the upper. The lower part of the fins are of a vermilion dye. The gills are quadruple, and it has teeth both in the jaws and on the tongue; in the upper jaw there is a double row of them. The swimming-bladder is like that of a trout; the liver is not divided into lobes; the gall-bladder is large; the heart triangular, the spleen small and blackish: and the eggs of the spawn large and round. The flesh more soft and tender than that of a trout, and when boiled can scarcely be allowed to be red. It is in the highest esteem where known, and in *Wales* is accounted the chief dish at the tables of people of fashion.

The GUILT, *or* GILT CHARR,

Is proportionably broader than the trout, and the belly is more prominent; but its length, when greatest, never exceeds twelve inches: the scales are small, the colour of the back more lively than that of a trout, and is beautified with black spots: the belly and sides, beneath the lateral line, are of a bright silver colour; the skull is transparent, and the snout bluish: it has teeth in the lower jaw, on the palate, and the tongue; the swimming bladder is extended the whole length of the back, and the gall-bladder is large. The flesh of the gilt charr is red, and is counted so very delicious among the Italians, that they say it excels all other pond and sea fish whatever; and they esteem the nature of it so wholesome, that they allow sick persons to eat it.

Principal Rivers for Fishing.

The principal rivers in *England* are the *Thames*, *Severn*, *Trent*, *Tine*, *Tweed*, *Medway*, *Tees*, *Dove*, *Isis*, *Tame*, *Willey*, *Avon*, *Lea*, *Trevel*, *Nen*, *Welland*, *Darwent*, *Calder*, *Wharf*, *Nid*, *Don*, *Swale*, *Hull*, *Ouse*, and *Are*. The rivers in *Wales* are reckoned above two hundred, the principal of which are the *Dee*, *Wye*, *Conway*, *Tivy*, *Chedlayday*, *Cluid*, *Usk*, *Tovy* *Taff*, and *Dovy*. Several rivers in *England* run under ground, and then rise again, as a branch of the *Medway* in *Kent*; the *Mule* in *Surrey*; *Hans* in *Staffordshire*; the little rivers *Allen* in *Denbighshire*, and *Deveril* in *Wiltshire*: the river *Recall* hides itself under ground, near *Elmsley*, in the North-riding of *Yorkshire*: at *Ashwell* in *Bedfordshire*, rise so many sources of springs that they soon drive a mill; at *Chelder*, near *Axbridge*, in *Somersetshire*, is a spring that drives twelve mills in a quarter of a mile. In the midst of the river *Nen*, south of *Peterborough*, in *Northamptonshire*, is a deep gulph called *Medeswell*, so cold, that in summer no swimmer is able to endure it, yet it is not frozen in the winter. But of these enough.

The six principal rivers are as follow:—

1. The *Thames*, compounded of two rivers, *Tame* and *Isis*. The *Tame* rises in *Bucks*, beyond *Tame* in *Oxfordshire*, and the *Isis* in *Cotswold-hills*, near *Cirencester*, in *Gloucestershire*. They meet together about *Dorchester* in *Oxfordshire*, and thence run united betwixt that county and *Bucks*, and between *Buckinghamshire*, *Middlesex*, and *Essex*, on the one side, and *Surrey* and *Kent* on the other, wedding itself to the *Kentish Medway* in the very jaws of the ocean. This river is said to feel the violence and benefit of the sea more than any other river in *Europe*, ebbing and flowing twice a day more than sixty miles.

2. The second river of note is the *Severn*, which has its beginning in *Plinlimmon-hill* in *Montgomeryshire*, and its end seven miles from *Bristol*, washing in that space the

the walls of *Shrewsbury*, *Worcester*, *Gloucester*, and divers other places and palaces of note. It receives greater rivers, and is farther navigable than the *Thames*, but does not equal it for the quantity and variety of fish.

3. The *Trent* (so called on account of the thirty different kinds of fish which are to be found in it, or because it receives thirty small rivers) has its fountain in *Staffordshire*, and, gliding through the counties of *Nottingham*, *Lincoln*, *Leicester*, and *York*, augments the turbulent current of the *Humber*, the most violent stream of all the isle. The *Humber* is not a distinct river, because it has not a spring head of its own, but is rather the mouth or *æstuarium* of divers rivers meeting together; among which, besides the *Trent*, are the *Darwent* and *Ouse*.

4. The *Medway*, a *Kentish* river, rises near *Tunbridge*, passes by *Maidstone*, runs by *Rochester*, and discharges itself into the mouth of the *Thames*, by *Sheerness*; a river chiefly remarkable for the dock at *Chatham*, where ships of the first rate are built and repaired for the use of the *English* navy.

5. The *Tweed*, the north-east boundary of *England*, on whose banks is seated the strong and almost impregnable town of *Berwick*.

6. The *Tine*, famous for *Newcastle* and its inexhaustible coal-pits.

But to return to the *Thames*, of which, and the rivers that fall into it, I shall treat somewhat particularly, as they are more the seat for the diversion of angling than any others. The higher an angler goes up the *Thames*, if within about four miles, the more sport and the greater variety of fish he will meet with; but, as few *Londoners* go so far from home, I shall mention the best places for *Thames* angling from *London-bridge* to *Chelsea*.

But before I proceed any farther on this subject, it will be necessary to lay down some rules, which the angler must attend to.

If the air is cold and raw, the wind high, the water rough, or if the weather is wet, it is totally useless to angle in the *Thames*. But when the sky is serene, the air temperate, and the water smooth, success will attend you.

The proper hours for angling are from the time that the tide is half ebbed to within two hours of high-water, provided the land floods do not come down. Always pitch your boat under the wind; that is, if the wind be in the south, then keep on the *Surrey* shore; if north, on the *London* side.

The best places for pitching a boat to angle in the *Thames*, are about one hundred and fifty yards from *York-stairs*; the *Savoy*, *Somerset-house*, *Dorset-stairs*, *Blackfriars-stairs*; the *Dung-wharf* near *Water-lane*, *Trig-stairs*, and *Effex-stairs*. On the *Surrey* side, *Falcon-stairs*; *Barge-houses*; *Cuper's* vulgo *Cupid's-stairs*; the *Windmill*, and *Lambeth*.

When you go to angle at *Chelsea*, on a calm fair day, the wind being in a right corner, pitch your boat almost opposite to the church, and angle in six or seven feet water, where, as well as at *Battersea-bridge*, you will meet with plenty of roach and dace.

Mortlake Deeps is the next place where roach principally resort, when the weeds are rotten: and here are good carp very often taken.

From the sides of the *Aits*, opposite to *Brentford*, *Isleworth*, and *Twickenham*, there is very good angling for roach, dace, gudgeons, and perch; very often you will meet with trout and carp.

Teddington Banks are remarkable for good gudgeons, roach, &c.

Kingston-wick and *Kingston* are famous for barbel, roach, and dace.

At *Hampton* and *Sudbury* there is good angling for barbel, roach, dace, chub, gudgeons, and skeggers: and from the *Aits* for trout and perch.

Walton Deeps and *Shepperton Pool* abound with large barbel and dace.

At and about *Windsor* is a vast variety of all sorts of fish; but, if a man be found angling in another's water (without leave) he is fined very high by the court of that town, if he only catches a single gudgeon, &c.

Of the rivers that empty themselves into the *Thames*, and of others which are not far from it, I shall begin with those on the north side.

1. *Ilford-river*, the upper part of which abounds with roach, dace, and some perch; but, between *Ilford* and the *Thames*, especially about three miles from the town, there is pike.

2. *Woodford-river*, stored with perch, chub, roach, and dace.

3. *Stratford-river* affords the angler good diversion for roach, dace, chub, perch, &c.

4. *Bow-river* has the same fish in it as the *Stratford-river*.

5. *Hackney-river*, having plenty of large barbel, chub, roach, dace, gudgeon, eels, and lampreys. In this river the barbels, eels, and gudgeons, are very fine.

6. *Waltham-river*, besides large barbel, chub, roach, dace, gudgeon, and eels, has good store of fine pike, and some carp.

7. The *New-river* is pretty well stored with chub, roach, dace, gudgeon, and eels.

8. *Brentford-river*, a good one formerly, but now much abused by poachers; but the angler may meet with some chub, roach, dace, and perch.

9. *Hounslow-river*, well stored with roach, dace, perch, pike, and gudgeon.

The powder-mill-tail, near *Hounslow*, is a very good place for angling.

10. *Colne-river*, abounding with chub, roach, dace, perch, trout, and pike.

11. *Uxbridge-river*, excellent for large eels and fat trouts: but, as the water is rented, not only leave must be obtained to angle in it, but you must pay so much per pound for what you kill. *Denham*, near *Uxbridge*, is a very famous place.

Having now done with the north side, I proceed to the south of the *Thames*.

1. *Deptford-river*, now very much decayed, and has but a few fish in it, as roach, dace, and flounders: though by chance you may meet with a trout.

2. *Lewisham-*

2. *Lewisham-river*, in which are some good trouts, large roach, chub, gudgeon, perch, and dace.

3. *Wandsworth-river*, well stored with gudgeons, dace, flounders, perch, pike, and some carp and trouts: very large silver eels are often taken there.

4. *Mitcham-river*, its principal fishes are trouts.

5. *Martin-river*, for trouts also.

6. *Carshalton-river*, abounding with trouts and other white fishes.

7. *Moulsey river*, yielding perch, jack, roach, dace, chub, gudgeons, eels, flounders, barbels, and trouts.

8. *Esher-river*, good for jacks, perch, chub, roach, dace, gudgeons, eels, flounders, barbels, and trouts.

9. *Cobham-river*, stored with plenty of good trout, fat and large, as also dace, perch, chub, jacks, and gudgeons.

10. *Weybridge-river*, affording good diversion for carp, some of which weigh eight or nine pounds; also jack, roach, dace, flounders, popes, large bleak, barbel, and gudgeons.

11. *Byfleet-river*, wherein are very large pikes, jack, and tench; perch, of eighteen inches long; good carp, large flounders, bream, roach, dace, gudgeons, popes, large chub, and eels.

The following are the most approved methods of making compounds to allure fish, so that they may be taken with ease:—

Mix the juice of houseleek with nettles and cinquefoil chopped small; rub your hands therewith, and distribute it in quantities in the water; put your hand into the water, and the fishes will suffer themselves to be taken with ease.

Fish may be drawn into any place or part of a river, by throwing in the following composition:—Take goat's, bullock's, and sheep's blood, which is found curdled among the entrails in the body of the animal fresh killed; pound well with these, thyme, marjoram, origan, flour, garlic, wine-lye, and suet, and let the whole be made into pills; these must be scattered into the pond discretionally, where the fish are wished to come.

Pound nettles with joubarbe, and a small quantity of quintefolium grass; to these add wheat boiled in marjoram, and thyme water; pound the whole together, and drop it into the net.

Take heart-wort and slack-lime, make them into a paste, which throw into standing water; this will fix them, and cause them to be taken at pleasure.

Make a paste of cocolus indicus, cummin, old cheese, wine-lye, and wheat-flour; throw small pieces of it into clear and undisturbed parts of the pond or river, and every fish that swallows one of these pills will become so intoxicated as to swim upon the surface of the water, and suffer itself to be taken. This intoxication will go off in a short time, therefore those who use this method must take them quickly.

Take fisher's berries, pound them in a mortar, and with water make them into a paste; throw pills of this into the water, and it will have the same effect as the former.

Pound together marjoram, marigolds, wheat flour, and rancid butter, and it will allure fish of all kinds to the net.

Take gum ivy and put a good deal of it into a box made of oak, and chafe and rub the inside of it with this gum. When you angle put three or four worms into it, but they must not remain there long; for if they do it will kill them; then take them out, and fish with them, putting more in their places, as you want them, out of your worm bag. Gum ivy is a tear which drops from the body of large ivy trees, being wounded, and is of a yellowish red colour, of a strong scent, and sharp taste; that which is sold in the shops is counterfeit, and good for nothing. Therefore, to get gum ivy, about Michaelmas, or in the spring, drive several great nails into large ivy stalks, wriggle the same till they become very loose, and let them remain, and the gum will issue thereout. Also slit several great ivy stalks at the times above-mentioned, and visit them once a month and gather the gum which flows from the wounded part. This will very much improve the angler's success.

Take assa-fœtida three drachms, camphor one ditto, Venice turpentine one ditto, pound the whole together in a mortar, with some drops of the chemical oil of lavender, or spike. When you angle anoint eight inches of your line with it, next your hook, and it is excellent for a trout in muddy water, and for gudgeons in clear.

Dissolve gum ivy in oil of spike, and anoint your bait for a pike with it, and he will take it the sooner.

Take cat's fat, heron's fat, and the best assa-fœtida, of each two drachms, Mummy finely powdered ditto, cummin seed finely powdered two scruples, and camphor, galbanum, and Venice turpentime of each one drachm, and civet two grains. Make them, *secundum artem*, into a thinnish ointment, with the chemical oils of lavender, annisced, and chamomile, and keep it in a narrow mouthed and well glazed gallipot, close covered with a bladder and leather, and it will keep two years. When you want to use it, put some into a small taper pewter box, and anoint your line with it, about eight or nine inches, from the hook, and when it is washed off repeat the unction.

Take fresh horse dung, and put it into a bag, or net, throw it into the water, and the fish will gather about it.

Take quick-silver, which put into a thick glass phial, fasten it to a packthread, and let it down to the bottom of the water in the night, especially when the moon shines, and you will see a quantity of fish come together.

Put oil of chamomile into a phial, and when you would fish you must have some worms and kill them in the said phial of oil, and bait your hooks with those worms.

Boil barley in water till it bursts, then boil it with liquorice, a little mummy and honey; beat all together in a mortar, till it is stiff as paste, which put into boxes close stopped; when you would fish at any place, take about the quantity of a walnut of it, and boil in an earthen pot, with two handfuls of fresh barley,

barley, and a little liquorice, leaving it till it is almost dry; then throw it into the places where you would have the fish come, and they will gather there.

Take the herb dragon-wort, from which extract the juice, with it rub your hands, and the fish will come near, and suffer themselves to be taken, holding them in the water; the proper hour for fishing is from five till six in the morning.

Take some of a heron's flesh, and put it into a bottle close covered with clay, or wax, with some musk, amber, and civet, put the pot into a kettle full of water, and make it boil till you are sure the said flesh is converted into oil, then take out the bottle, and pour out the oil; with which rub your line, and all the fish will come to be taken.

Take fat of a heron, mummy, galbanum, of each two drachms, musk one grain, aqua vitæ two ounces, mix all together in an earthen porringer over a gentle fire, and stir till it is thick; keep it in a leaden porringer, and with it rub the hook, or the ends of the line, or cork, and the fish will come so that you may take them with your hands.

Take the belly of a heron, that is, the bowels or entrails, cut in pieces, and put it into a glass phial, which stop close with wax: then bury it in hot horse-dung, and let it turn to oil, which will be within ten or fifteen days; then take an ounce of assa-fœtida, and mix it with the said oil, it will all thicken like honey, with which anoint your line, stick, or rod, or else the bait you put upon the hook.

For all the necessary Instructions for HOOKS, *&c. see the Articles* ANGLING ROD, *&c.*

An Epitome of the whole Art of FISHING, wherein is ſhewn (at one view) the harbours, ſeaſons, and depths, for catching all ſorts of fiſh uſually angled for; alſo, the various baits for each, ſo digeſted, as to contain the eſſence of all the treatiſes ever wrote on the ſubject, exempt from their ſuperfluities, which tend more to perplex than inſtruct.

Names.	Where found.	Seaſon.	Time to ang.	Depth from ground.	Proper Baits.			
					Flies No.	Paſtes No.	Worms No.	Fiſh and Inſects No. 8
Bream	rough ſtr. river, or mid. pond	April to Mich.	Sun riſe to 9 3 to Sun ſet	touch ground	—	1 3	1 to 7	
Barbel	gravel banks in currents under bridges	April to Aug.	very early or late	ditto	—	2	2 6 7	—
Bleak	ſandy bottom deep rivers, ſhips ſterns*	May to Oct.	all day	6 inches from bottom	1 2	2	2 3 8	—
Carp	ſtill deep mud bottom pond or river	May to Aug.	Sun riſe to 6 3 to Sun ſet	3 inches from bottom hot weather mid water	—	1 3 4	1 2 3 4 7	—
Chub or Chevin	ditto	May to Dec.	ditto	ditto	1 to 5	2	1 2 4 5	7 8
Dace	ſandy bottom deep rivers, ſhips ſterns*	May to Oct.	all day	6 to 12 inches from bottom	ditto	3 4	1 to 5 & 8	—
Gudgeon	gravel ſhoals	May to Oct.	ditto	near or on bottom	—	ditto	2 8	—
Pike	near clay banks	All the year	ditto	mid water	who. ſtr. and ſnap	line float hook fixt	on ſhore	1 2 3 4 5 6 7
Pearch	river in ſtream } gravel or weedy bottom	May to Aug.	6. riſe to 10 2 to Sun ſet	ditto		1	3 5 7 8	1 6
	pond deepeſt pt.	Aug. to May		6 inches from bottom	2			
Pope	deep holes in rivers	May to Oct.	mid. day	ditto	5	—	all	—
Roach	ſandy bottom deep rivers, ſhips ſterns*	May to Oct.	all day ditto	6 to 12 inches	1 2 4 5	3 4	ditto	8
Salmon	deep rivers	Mar. to Sept.	8 to 9, 3 to 6	mid way to the bottom	all large	—	1 5 6 7	1
Smelts	ſhips ſterns* and docks	Apr. to Oct.	all day	mid way to the bottom variable	all ſmall	—	1 2 5	bits of ſmelts
Trout	purling ſtreams and eddies of ſtony bottom rivers	Mar. to Mich.	ditto	cold weather 6 inches to 9 hot wea. top to mid water	1 to 5	—	1 2 5 to 8	1 8
Tench	mud bottom river or pond	All the year	Sun riſe to 9 3 to Sun-ſet	cold wea. 3 inch. from bot. hot weather mid water	—	1 3 4	1 3 4 to 7	— —
Umber or Grayling	clay bottom, ſwift ſtream	All the year	all day	cold weather 6 to 9 inches hot wea. top to mid water	1 to 5	—	all	1 8

* To fiſh at ſterns, let the bait ſink two or three yards; in this a pater-noſter line is commonly uſed, that is, five or ſix hooks on a line, about four or five inches diſtance: bait as above—The figures in this table are explained as follow:

A Description of proper Baits for the several Sorts of FISH *referred to in the foregoing Table.*

FLIES.

1. Stone-fly, found under hollow stones at the side of rivers, is of a brown colour, with yellow streaks on the back and belly, has large wings, and is in season from *April* to *July*.

2. Green-drake, found among stones by river sides, has a yellow body ribbed with green, is long and slender, with wings like a butterfly, his tail turns on his back, and is in season from *May* to *Midsummer*.

3. Oak-fly, found in the body of an old oak or ash, with its head downwards, is of a brown colour, and excellent from *May* to *September*; for trout, put a cod-bait or gentle on the point, and let it sink a few inches in clear water.

4. Palmer-fly, or worm, found on leaves or plants, is commonly called a caterpillar, and when it comes to a fly is excellent for trout.

5. Ant-fly is found in ant-hills from *June* to *September*.

6. The may-fly is to be found playing at the river-side, especially against rain.

7. The black-fly is to be found upon every hawthorn, after the buds are come off. *For the flies proper for each month, see the articles* APRIL, *&c.* ANGLING.

PASTES.

1. Take the blood of sheeps hearts, and mix it with honey and flour worked to a proper consistence.

2. Take old cheese grated, a little butter sufficient to work it, and colour it with saffron: in winter use rusty bacon instead of butter.

3. Crumbs of bread chewed or worked with honey, (or sugar), moistened with gum-ivy water.

4. Bread chewed, and worked in the hand till stiff. *See for more under the Article* PASTE FOR ANGLING: *as also for* WORMS *under its proper article.*

WORMS.

1. The earth bob, found in sandy ground after plowing; it is white with a red head and bigger than a gentle: another is found in healthy ground, with a black or blue head. Keep them in an earthen vessel well covered, and a sufficient quantity of the mould they harbour in. They are excellent from *April to November*.

2. Gentles, to be had from putrid flesh: let them lie in wheat bran a few days before used.

3. Flag-worms, found in the roots of flags, they are of a pale yellow colour; are longer and thinner than a gentle, and must be scowered like them.

4. Cow-turd-bob, or clap-bait, found under a cow-turd, from *May* to *Michaelmas;* it is like a gentle, but large. Keep it in its native earth, like the earth-bob.

5. Cadis-worm, or cod-bait, found under loose stones in shallow rivers; they are yellow, bigger than a gentle, with a black or blue head, and are in season from *April* to *July*. Keep them in flannel bags.

6. Lob-worm, found in gardens; it is very large, and has a red head, a streak down the back, and a flat broad tail.

7. Marsh-worms, found in marshy ground: keep them in mud ten days before you use them: their colour is a blueish red, and are a good bait from *March* to *Michaelmas*.

8. Brandling red-worms, or blood worms; found in rotten dunghills and tanners bark; they are small red-worms, very good for all small fish, have sometimes a yellow tail, and are called tag tail.

FISH *and* INSECTS.

1. Minnow, 2. Gudgeon, 3. Roach, 4. Dace. 5. Smelts, 6. Yellow Frog, 7. Snail Slit, 8. Grasshopper.

FITCH, } a pole-cat; also the skin or fur of
FITCHOW, } that creature.

FIVES. *See* VIVES.

FLAG-WORM, an insect so called, because it is found and bred in flaggy ponds or sedgy places, hanging to the fibres, or small strings that grow to the roots of the flags, and they are usually inclosed in a yellow or reddish husk or case.

FLANKS, the sides of an horse. In a strict sense, the flanks of a horse are the extremities of his belly, where the ribs are wanting, and below the loins. They should be full, and at the top of them, on each side, should be a feather; and the nearer those feathers are to each other, so much the better; but if they be as it were within view, then the mark is excellent.

The distance between the last rib and haunch-bone, which is properly the flank, should be short, which is termed well-coupled; such horses are most hardy, and will endure labour longest.

If a horse have a flank full enough, you are to consider whether it be too large; that is, if over against that part of the thigh called the stiffle, the flank fall too low; for in that case it is a great advance to pursiness, especially if the horse be not very young.

A horse is said to have no flank, if the last of the short ribs be at a considerable distance from the haunch-bone; although such horses may for the time have very good bodies, yet when they are hard laboured, they will loose them.

A horse is also said to have no flank, when his ribs are too much straightened in their compass, which is easily perceived, by comparing their height with that of the hauuch-bones, for they ought to be as high, and equally raised up as they are, or but very little less, when the horse is in good case.

A horse is likewise said to have little flanks, to be sorrily bodied, to be grunt-bellied and thin gutted, when his flank turns up like a greyhound, and his ribs are flat, narrow, and short.

A well flanked horse, is one that has wide and well-made ribs, and a good body. In this case, the word flank is used in the room of gut.

FLEAM, is a small instrument of fine steel, composed

posed of two or three moveable lancets for bleeding a horse; and sometimes make incisions upon occasion, and supplying the room of an incision-knife.

To prevent Flies teazing Cattle.

Boil bay-berries in oil, and anoint them with it, and they will never sit on cattle; or, wet the hair of horses, with the juice of gourd at *Midsummer*, and they will not molest them. If cattle are anointed with the juice of aresmart, flies will not come near them, though it is the heat of summer.

To FLING, is the fiery and obstinate action of an unruly horse.

To fling like a cow, is to raise only one leg, and give a blow with it.

To fling, or kick with the hind-legs. *See* YERK.

FLINTS, for fowling-pieces, should be clear, but whether dark or light coloured is immaterial. Their size should be suited to the gun, and be neither too large and thick, or too small and slight; the first will not give freely, and the other will be apt to break.

FLOATS FOR FISHING, are made divers ways; some use the quills of *Muscovy* ducks, which are the best for slow waters, but for strong streams cork floats are the best; therefore take a good sound cork, without flaws or holes, and bore it through with a hot iron, into which put a quill of a fit proportion; then pare the cork into a pyramidal form, of what size you please, and grind it smooth.

For your float, in slow streams, a neat round goose-quill is proper; but for deep or rapid rivers, or in an eddy, the cork, shaped like a pear, is indisputably the best; which should not, in general, exceed the size of a nutmeg; let not the quill, which you put through it, be more than half an inch above and below the cork; and this float, though some prefer a swan's quill, has great advantage over a bare quill; for the quill being defended from the water by the cork, does not soften, and the cork enables you to lead your line so heavily, as that the hook sinks almost as soon as you put into the water; whereas, when you lead but lightly, it does not get to the bottom till it is near the end of your swim. See the form of the float, Plate IX. Fig. 16. and, in leading your lines, be careful to balance them so nicely, that a very small touch will sink them; some use for this purpose lead shaped like a barley-corn, but there is nothing better to lead with than shot, which you must have ready cleft always with you; remembering, that when you fish fine, it is better to have on your line a great number of small than a few large shot.

Whip the end of the quill round the plug with fine silk, well waxed; this will keep the water out of your float, and preserve it greatly.

FLOAT-ANGLING. In this the line should be longer than the rod by two or three feet, and let the pellet that is put upon it be neither so heavy as to sink the cork or float, nor so light as to hinder the smallest touch from pulling it under water, because that is the only sign you have of a bite. In rivers, it will be most proper to make use of a cork; but in standing waters, a quill will serve well enough.

In fishing with a float, your line must be about a foot shorter than your rod: for if it is longer, you cannot so well command your hook when you come to disengage the fish.

Pearch and chub are caught with a float, and also gudgeons, and sometimes barbel and grayling.

For carp and tench, which are seldom caught but in ponds, use a very small goose or a duck-quill float; and for ground bait throw in, every now and then, a bit of chewed bread.

For barbel, the place should be baited the night before you fish, with graves, which are the sediment of melted tallow, and may be had at the tallow-chandlers: use the same ground-bait while you are fishing, as for roach and dace.

In fishing with a float for chub in warm weather, fish at mid-water, in cool weather, and in cold at the ground.

FLOUNDERS, may be fished for all day long, either in a swift stream, or in the still deep water; but best in the stream, in the months of *April*, *May*, *June*, and *July*: the proper baits are all sorts of worms, wasps, and gentles.

FLUX IN SWINE. It comes by great loosenesses in eating unwholesome food.

Bruise nut-galls, or dried acorns, sloes, and white starch, of each an ounce; boil them in a pint of vinegar and a quart of milk; strain it, and give it warm, morning and evening. Or,

Take nut gall, two ounces, as much starch, and a handful of betony, half an ounce of turpentine, boil them in a pint of milk, and a quart of vinegar, and give it hot three mornings.

FLY-ANGLING. Let the rod be light, and the line twice as long as your rod, and very strong at top, and grow gradually taper. You must contrive to have the wind on your back, and the sun, if it shines, to be before you, and to fish down the stream: and carry the point or top of your rod downwards, by which means the shadow of yourself and the rod too, will be the least offensive to the fish, for the sight of any shade disturbs the fish, and spoils sport.

In *March*, or *April*, if the weather be dark, or a little windy or cloudy, the best fishing is with the palmer-worm, which, with the may-fly, are the ground of all fly-angling. *See the Articles* FISHING, ANGLING, *&c.*

Till you are a proficient, every throw will go near to cost you a hook: therefore practise for some time without one; or get your flies dressed on silk-worms gut, and you will not easily break them off. *See Articles* FISHING, ANGLING, *&c.*

The best times to use a fly are, when the river has been a little discoloured by rain, and is again clearing, or a cloudy, breezy day. When the wind is high, chuse the still deep; when small or none, the running streams, use then the natural, in boisterous weather the artificial fly. In clear streams, use a small fly; in less clear, one larger; a light coloured fly, in a bright day; a dark fly for dark waters; and an orange fly in muddy ones.

To FLY ON HEAD, (in Falconry) is, when a hawk, missing her quarry, betakes herself to the next check, as crows, *&c.*

To FLY CROSS, (in Falconry) is said of a hawk, when she flies at great birds, as cranes, geese, *&c.*

To FLY THE HEELS: a horse is said to fly the heels when he obeys the spur. *See* SPUR *and* HEELS.

FOAL. Colt is the young male of the horse kind, as filly is the female. It is no difficult matter to know the shape that a foal is like to be of, for the same shape he carries at a month, he will carry at six years old, if he be not abused in after keeping; and as the good shape appears, so do the defects also.

And as to heighth, it is observed, that a large shinbone, long from the knee to the pastern, shews a tall horse; for which, another way is, to see what space he has between his knee and withers, which being doubled, it will be his heighth when he is a competent horse.

There are also means to know their goodness; for if they are stirring spirits, free from affrights, wanton of disposition, and very active at leaping and running, and striving for mastery, such generally prove good mettled horses; and those on the contrary are jades.

And if their hoofs be strong, deep, tough, smooth, upright standing, and hollow, they cannot be bad; therefore, the *Barbary* horse is well known by his hoof.

Foals are usually foaled about the beginning of summer, and it is customary to let them run till *Michaelmas* with the mare, at which time they may be weaned. Some however maintain, that a foal is rendered much sooner fit for service by being allowed to suck the whole winter, and weaned about *Candlemas* or *Shrovetide*. When first weaned, let them not be kept in the hearing of their dam, but should be kept in a convenient house, with a low rack and manger for hay and oats; the hay must be very sweet and fine, especially at first, and a little white bran should be mixed with their oats, in order to keep their bodies open, and make them eat and drink freely. When foals are kept up in the winter, they are not to be immured continually in the stable; but in the middle of the day, when the sun shines warm, they should always be allowed to play about for an hour or two, and when the winter is over, they should be turned into some dry ground where the grass is sweet and short, and where there is good water, that they may drink at pleasure. The winter after they may be kept in the stable, without any further care than that which is taken of other horses; but after the first year, fillies and colts should not be kept together. *For the manner of breaking them, see the Article* HORSE.

FODDER, any kind of meat for horses, or other cattle. In some places, hay and straw mingled together, is peculiarly denominated fodder.

FOGGAGE, (in the forest law) is rank grass not eaten up in summer.

FOILING, (among Sportsmen) the footing and treading of a deer, that is on the grass, and scarce visible.

FOLD NET, a sort of net with which small birds are taken in the night, as represented in Plate VII. Fig. 1. and which may be carried by one man, if small; or, if large, two may manage it, and is as follows:

When the net is fixed on both sides to two strong, straight, and light poles, you must have, at least, two or three lusty men to assist you, all very silent; the poles whereon your nets are tied, should be about twelve feet long, that so they may hold up the higher.

He who bears the lights, which should be torches, must carry them behind the nets in the midst of them, about two yards from them; and so order it, as to carry the nets between the wind and the birds, who all naturally roost on their perches with their breasts against the wind; by this means, he that beats the bushes on the other side of the hedge, will drive them out the way towards the light.

When you find any bird in your net, you need not make much haste, for it will ensnare them of itself, and they cannot get away suddenly.

FONCEAU, is the bottom, or end, of a cannon-bitt-mouth; that is, the part of the bitt that joins it to the banquet. *See* CHAPERON.

FOOD-CASTING; this is a disorder in horses, that arises from an overload of some new meat. When a horse is turned into fine clover carelessly, or when he eats largely of the fresh pulse kinds often, his stomach falls into this disorder; and he will cast up every thing he swallows, water as well as food.

Dissolve in a pint of boiling water, half an ounce of mithridate, a quarter of an ounce of philonium romanum, and an ounce of honey; add to this, a drachm of powder of cinnamon, and a pint of red port wine, and give it as a drench. He must not have any thing for two hours after it, and then only a little sweet hay. After this, feed him carefully, and give him moderate labour or exercise for three days, and there will be seldom any occasion for repeating the drench; but, if there should, one more will make the cure effectual.

FOOT OF A HORSE, consists of a hoof or coffin; which is all the horn that appears when the horse's foot is set on the ground.

It is a great imperfection to have feet too large and fat, or to have them little: such horses as have them too little, are for the most part very heavy, and apt to stumble, especially if with such feet they have weak legs, and too long pasterns; on the other hand, too small feet are much to be suspected, because they are often painful, and subject to cloven quarters, and other imperfections.

FOOT OF A HORSE, is the extremity of the leg, from the coronet to the lower part of the hoof.

The four feet are distinguished by four different names; the two fore feet are by some called the hands of a horse, but that term is in disuse; the common expression being the far fore foot, to denote the right foot before; the near foot, the stirrup foot, and the bridle hand foot, to denote the left before.

Of the two hinder feet, the right is called the far hind foot: and when spears were used, it was called the spear foot, because in resting the spear, the socket of it answered the right foot.

The left hind foot, is called the near foot behind.

FAT-

FAT-FOOT; a horse is said to have a fat foot, when the hoof is so thin and weak, that unless the nails be drove very short, he runs the risk of being pricked in shoeing; the *English* horses are very subject to this disorder. A horse's foot is said to be derobe, *i. e.* robbed or stolen, when it is worn and wasted by going without shoes, so that for want of hoof it is difficult to shoe them.

FOOTGELD, } an amercement, or fine laid upon
FOUTGELD, } those who lie within the bounds of a forest, for not lawing or cutting out the ball of their dogs feet; and to be quit of footgeld, is a privilege to keep dogs there unlawed and uncontrouled.

FOREHEAD OF A HORSE, should be somewhat broad; some would have it a little raised, but a flat one is more beautiful.

A horse should have in his forehead that which we call a feather, which is a natural frizzling or turning of the hair; if he have two that are near, or touch, the mark is so much the better.

If a horse be neither white, dappled nor approaching these colours, he should have a star or blaze in his forehead: it being a defect, not only as to the beauty, but often as to the goodness of the horse of any dark colour to be without one.

FORE-LEGS OF A HORSE, consist of an arm, fore thigh and the shank, both which, the larger, broader, and more nervous they are, the better.

FORE-LOIN (with Hunters) is when a hound going before the rest of the cry, meets chase and goes away with it.

FOREST, a great wood, or place privileged by royal authority, which differs from a park, warren, or chase; being on purpose allotted for the peaceable abiding and nourishing of beasts and fowls thereto belonging; for which there are certain peculiar laws, officers, and orders, part of which appear in the great charter of the forest. Its properties are these:

1. A forest truly and strictly taken, cannot be in the hands of any but the King, because none else has power to grant a commission to be a Justice in Eyre.

2. The next property is the courts, as the Justice-seat every three years, the Swainmote three times a year, and the Attachment once every forty days.

3. The third property may be the officers belonging to it, for the preservation of vert and venison; as the Justice of the forest, the Warder or Keeper, the Verdurers, the Foresters, Agistors, Regarders, Beadles, *&c.* which see in their proper places.

But the principal court of the forest is the Swainmote, which is no less incident thereto, than a pie-powder to a fair; and if this fails there is nothing of a forest remaining, but it is turned into the nature of a chase.

Forests are of that antiquity in *England*, that, excepting the New-forest in *Hampshire*, erected by William the Conqueror; and *Hampton*-Court erected by Henry VIII. it is said there is no record or history which makes any certain mention of their erection, though they are mentioned by several writers, and in divers of our laws and statutes. There are 69 forests in *England*, 13 chases, and 800 parks; the four principal forests are New-forest, Sherwood-forest, Dean-forest, and Windsor-forest.

FORESTER, is an officer of the forest, sworn to preserve the vert or venison therein, and to attend the wild beasts within his bailiwick, and to watch and endeavour to keep them safe by day and night; he is also to apprehend all offenders against vert and venison, and to present them to the courts of the forest, to the end that they may be punished according to their offences.

FORKED HEADS (with Hunters) all deer-heads which bear two croches on the top, or that have their croches doubled.

FORKED-TAILS, a name given in some parts of the kingdom to the salmon, in the fourth year of its growth.

FORME, a *French* term for a swelling in the very substance of a horse's pastern, and not in the skin; they come as well in the hind legs as in the fore, and though it be an imperfection not very common, yet it is dangerous, as it will admit no other remedy but firing and taking out the sole; neither can the fire be given to the part without great difficulty and hazard.

FORMICA, is a distemper which commonly seizes upon the horn of a hawk's beak, which will eat the beak away, occasioned by a worm.

FORMICA is also a scurvy mange, which in summer time very much annoys a spaniel's ears, and is caused by flies and their own scratching with their feet.

For the cure: Infuse four ounces of gum-dragon in the strongest vinegar that can be got, for the space of eight days, and afterwards bruise it on a marble stone, as painters do their colours; then add two ounces of roach alum and galls; mingle all well together and apply it to the part affected.

FORMS, OR SEATS (hunting term) applied to a hare, when she squats in any place.

FOUR CORNERS; to work upon the four corners, is to divide (in imagination) the volt or round into four quarters; the horse makes a round or two on trot or gallop, and when he has done so upon each quarter he has made the four corners.

To FOUNDER A HORSE, is to over-ride him, or to spoil him with hard working.

FOUNDERING IN THE FEET, a distemper that affects a horse by means of hard riding or labour, or by heats and colds, which disorder the body, and excite malignant humours, that inflame the blood, melt the grease, and make it descend downwards to the feet, and there settle; which causes a numbness in the hoof, so that the horse has no sense or feeling in it; and is hardly able to stand, and when he does he shakes and quakes as if he had an ague fit upon him; sometimes this malady proceeds from his being watered while he is very hot, and his grease melted within him, and then suddenly cooled by setting him upon cold planks without litter; or by taking his saddle off too soon, or else by letting him stand while hot in some shallow water up to the fetlocks;

fetlocks; by means of which extraordinary coldneſs, it cauſes the melted greaſe to fall down into their feet, and there to cake and congeal.

A horſe may alſo be foundered by wearing ſtraight ſhoes, and by travelling upon hard ground.

The ſymptoms by which you may know when your horſe is foundered upon his fore feet, and not his hind feet, is by his treading only upon his hind feet, and as little as he can upon the other; or his going crouching and crumpling upon his buttocks; and when ſometimes he is foundered upon his hind feet, and not upon his fore feet (which happens but ſeldom) it may be known by his ſeeming weak behind, and his reſting himſelf as much upon his fore feet as he can; being afraid to ſet his hinder feet to the ground.

The general method of cure is: firſt, to pare all the horſe's ſoles ſo thin that you may ſee the quick: then to bleed him well at every toe, ſtop the vein with tallow and roſin, and having tacked hollow ſhoes on his feet, ſtop them with bran, tar, and tallow, as boiling hot as may be; repeating this every other day for a week together, and afterwards to give him good exercise, *&c.*

CHEST FOUNDERING, a diſtemper proceeding from crudities in the ſtomach, or other weakneſſes obſtructing the paſſage of the lungs.

This is diſcovered by the horſe's often coveting to lie down, and ſtanding ſtraggling with his fore legs; the ſymptoms being much the ſame as in purſineſs; the only difference is, that young horſes are ſubject to cheſt foundering as well as old; whereas thoſe horſes which are troubled with purſineſs are generally ſix years old and above.

Graſs, with much refreſhing and cooling, cures the former, but increaſes the latter.

The cure: Take five or ſix pennyworth of oil of petre, and mingle it with an equal quantity of ale or beer, and with your hand rub this mixture on the part affected, a red hot fire-ſhovel being held againſt it while you are rubbing it.

FOUNDERING IN THE BODY, is cauſed by a horſe's eating too much provender ſuddenly, while he is too hot and panting, ſo that his food not being well digeſted breeds ill humours, which by degrees ſpread themſelves all over his members, and at length does ſo oppreſs his body that it renders him extremely weak, and makes him incapable of bowing his joints; and when he has laid down cannot riſe again; nor can he either ſtale or dung without great pain.

It is alſo cauſed by drinking too often upon a journey while he is hot, not being ridden after it.

The ſymptoms are, the horſe will be chilly and quake with cold after drinking; and ſome of his drink will come out at his noſe, and in a few days his legs will ſwell, and after a while begin to peel, he will have a dry cough, his eyes will water, and his noſe run with white phlegmatic ſtuff, he will forſake his meat, and hang down his head for extreme pain in the manger.

For the cure: Firſt, rake the horſe's fundament and give him a clyſter; then put half an ounce of cinnamon, and of liquorice and anniſeeds each two ſpoonfuls in fine powder, and five or ſix ſpoonfuls of honey into a quart of ale or ſack, ſet it on the fire till the honey is melted, and give it him lukewarm to drink, riding him afterwards gently for an hour, clothe him and litter him warm, and keep him faſting for two hours more: ſprinkle his hay with water, ſift his oats clean from the duſt, and give it him by little and little; let him drink warm meſhes of malt and water; and when he has recovered ſtrength, bleed him in his neck vein, and perfume his head with frankincenſe once a day.

FOWLING is uſed two manner of ways, either by enchantment or enticement; by winning or wooing the fowl unto you by pipe, whiſtle, or call; or elſe by machines or engines, which ſurprize them unawares.

Fowls are of divers ſpecies, which differ in their nature as their feathers; which by reaſon of the many different kinds, for brevity ſake, ſhall be only diſtinguiſhed here into two kinds, land-fowl and water-fowl.

The water-fowl are ſo called from the natural delight they take in and about the water, gathering from thence all their food and nutriment.

Here it may be obſerved, that water-fowl are in their own nature the moſt ſubtil and cunning of birds, and moſt careful of their own ſafety; and hence they have, by ſome authors, been compared to an orderly and well governed camp, having ſcouts on land afar off, courts of guards, centinels, and all ſorts of other watchful officers, ſurrounding the body, to give an alarm of the approach of any ſeeming danger.

And if you obſerve, you will find that there will be always ſome ſtraggling fowl, which lie aloof from the greater number, which ſtill call firſt.

Now it is the nature of water-fowl to fly in great flocks, having always a regard to the general ſafety; ſo that if you ſee a ſingle fowl or a couple fly together, you may imagine they have been ſomewhere affrighted from the reſt by ſome ſudden diſturbance, or apprehenſion of danger, but ſo naturally are they inclined to ſociety, that they ſeldom leave wing till they meet together again.

And this is occaſioned not only by the near approach of man, but alſo by the beating of haggards upon the rivers, as alſo by the appearance of the bold buzzard and ring-tail.

Of water-fowls there are two kinds, ſuch as live off the water, and ſuch as live on the water without ſwimming in it; but wading, and diving for it with their long legs: the other, web-footed and ſwim, as the ſwan, gooſe, mallard, &c.

As to the manner of fowling, or taking fowl, ſee under each particular kind in their proper places alphabetically. *See alſo* SHOOTING.

FOWLING-PIECE; that piece is always reckoned the beſt, which has the longeſt barrel, with an indifferent bore under a harquebuſs, though every fowler ſhould have them of ſuch different ſorts and ſizes as are ſuitable to the game he deſigns to kill: as to the barrel, let it be well poliſhed and ſmooth within, and the bore of an equal bigneſs, which may be proved by putting a piece

piece of pasteboard, cut of the exact roundness of the top, which gently put down to the touch-hole; and if it goes down well and even, without stops or slipping, you may conclude it even bored. The bridge pan must be somewhat above the touch-hole, only with a notch in the bridge-pan, to let down a little powder; which will prevent the gun from recoiling, which otherwise it is apt to do.

As to the locks, chuse such as are well filled with true work, whose springs must be neither too strong, nor too weak; and let the hammer be well hardened, and pliable to go down to the pan with quick motion at the touching the tricker; for the trial thereof, move it gently to the lock; and if it goes with jerks, in a circular motion, it is well made; as for the stocks, walnut tree or ash are very good; the maple is the finest and best for ornament.

In shooting, observe to shoot with the wind, if possible, and not against it; and rather side-ways, or behind the fowl, than full in their faces.

Next observe to chuse the most convenient shelter you can find, as hedge, bank, tree, or any thing else which may hide you from the view of the fowl.

Take care to have your dog at your heels under good command, not daring to stir till you give the word, after having discharged your piece: for some ill taught dogs will, upon the snap of the cock, presently rush out and spoil your sport.

If you have not shelter enough, by reason of the nakedness of the banks and want of trees, you must creep upon your hands and knees under the banks, and laying flat upon your belly, put the muzzle of your piece over the bank, and so take your level; for a fowl is so fearful of man, that though an hawk were soaring over her head, yet at the sight of a man she would take to the wing, and run the risk of that danger.

It is necessary for any gentleman, who sports much, to have two guns: the barrel of one about two feet nine inches, which will serve very well for the beginning of the season, and for wood-shooting: the other about three feet three inches, for open-shooting after *Michaelmas:* the birds by that time are grown so shy, that your shoots must be at longer distances But if you intend one gun to serve for all purposes, then a three feet barrel (or thereabouts) is most proper.

A long gun is less liable to do mischief to the sportsman, and is more certain to hit its mark, being not so soon put aside in taking sight.

It appears from various trials, that the shot fly as regularly, or more so, and with as much force without any wad between the powder and shot, as it does with wad; only it is difficult to keep the shot from mixing with the powder; but it does not signify how thin your wad is betwixt the powder and shot, so it does but keep them from mixing. But the shot fly the thicker and stronger from having a pretty good wad closely rammed over them.

It is a common practice to load with a pipe bowl of powder, and a bowl and a half of shot; and when they find they cannot kill often, think they do not put shot enough, so put in more, and are obliged to lessen the quantity of powder to prevent its recoiling; not considering this axiom, "that action and re-action are equal"——that upon discharge of powder the gun is forced back, as the shot is forwards, in proportion to the weight of shot to the weight of the gun; so that by putting in a larger load of shot, and less powder, you will be struck more, and the bird you shoot at less; so that though you put many shot into the bird, they will not have force enough to kill, unless at a very short distance.

To make Gun Barrels of a fine brown Colour.

As a brown barrel seems to be the most pleasing to a sportsman, the following is a certain and easy method to perform it:

Rub your barrel bright with sand paper, or if bright scour it with dry brickdust to take off all greasiness, and fit a stick or piece of wood into the muzzle long enough to hold it by.

Bruise roughly about half an ounce of stone-brimstone, and sprinkle it over a gentle fire either of wood, or coal, or charcoal; hold your barrel over the smoak, turning and drawing it backward and forward until it be equally tinged all over; this done, set it in a cellar or damp room till next day, in which time you will find it has thrown out a fine rust, over which you may draw your finger to spread it even alike, and let it stand another day. If you perceive any parts that have not taken the rust, you are to scour such parts bright, and repeat the above operation.

It is then to be polished with a hard brush (which is first to be rubbed with bees-wax) and after with a dry woollen or rough linen rag, which will make it look of a beautiful brown colour. This rubbing must be repeated every day so long as it throws out any roughness. No oil or grease should come on it for some time, as that may bring off the rust in places; but if by neglect it should get so strong a roughness, that you cannot get it down with common rubbing, in that case wipe it over with sweet oil, and rub it off gently with a clean linen rag, and the next day you may polish it down with your brush, as before directed.

Directions for keeping your Guns in order.

If your lock and furniture are bright, the best way to save the trouble, as well as prevent the damage that may be done by unskilful polishing, is never to suffer them to rust, which may easily be prevented by frequently rubbing all the bright parts with a small brush, dipped in sweet oil, which should be well rubbed off with a linen rag: and this should never be neglected both before and after using it.

It is needless to take the lock often to pieces, if you take it off and brush it with plenty of oil, and pull up the cock and hammer a few times, the dirt with the oil will work itself out, which is to be wiped off, and a little clean oil put on those parts where there is any friction, will answer the purpose.

To

To wash out the Barrel.

Fill it either with cold or warm water, and empty it and let it stand a few minutes, and the air and moisture will soften the soil left from the firing of the powder, so as to come off the easier. You may use sand with your rag or tow to wash it out, which will remove any of the soil that sticks hard to it without hurting its smoothness. Care must be taken to wipe it very dry, and if it is to be set by for a time, it will be proper to wipe it out with an oily rag and stop the muzzle with the same, otherwise it will be apt to rust. *See* STALKING HORSE.

Of the Stock, Lock, &c.

The wood which is most commonly employed for the stock, and which appears the best for the purpose, is walnut; and, the only choice in this is, that the grain be even and close, and as free as possible from knots and burrs, which, though they may add to the beauty of the stock, seldom fail to take away from its strength, unless they are confined entirely to the butt part. As to the curvature, no particular degree can be assigned as a standard; different persons requiring different degrees, according to the length of their neck, and to the manner in which they hold their head whilst taking aim. This, therefore, as well as the length of the butt, which depends partly upon the circumstances just mentioned, but chiefly upon the length of the arms, can be determined with great accuracy by the gunsmith, from observing the manner in which the shooter presents his piece and takes his aim.

With regard to the locks, we have nothing material to offer; the genius and industry of the *English* workmen having already brought them to such a degree of elegance and perfection, that we have scarcely any thing farther to hope for, or require. The real improvements are not confined to any particular maker; and, though the minutiæ peculiar to each may determine the purchaser in his preference, no person need fear much disappointment in the essential qualities of a lock, provided he goes to the price of a good one. It is of much more consequence to the excellence of a lock, that the springs be proportioned to each other, than that they should all be made very strong. A moderate degree of force is sufficient to produce the required effect; and whatever exceeds this proves detrimental, by rendering the trigger difficult to draw, or producing such a stroke as breaks the flints, or throws the piece from the direction in which it was pointed. If the main-spring be very strong, and the hammer-spring weak, the cock is often broken for want of sufficient resistance to its stroke, until it is stopped all at once by the check of the lock-plate. Whilst, on the other hand, if the hammer-spring be stiff, and the main-spring weak, the cock has not sufficient force to drive back the hammer. And, in both cases, the collision between the flint and steel is too slight to produce the necessary fire. The face of the hammer, also, may be too hard or too soft. The former is known by the flint making scarcely any impression upon it, and the sparks being few and very small. The latter is known by the flint cutting deep into the hammer at every stroke, whilst the sparks are also few in number, and of a dull-red colour. When the strength of the springs, and the temper of the hammer, are in their due degree, the sparks are numerous, brilliant, and accompanied with a considerable whizzing noise.

To explain these differences it is necessary to observe, that the sparks produced by the collision of flint and steel are particles of the metal driven off in a strongly-heated state, and which falling among the powder inflame it instantly. By snapping a gun or pistol over a sheet of white paper, we may collect these sparks, and, by submitting them to a microscope, demonstrate the truth of this. If the sparks are very brilliant, and accompanied with a whizzing noise, we shall find the particles collected on the paper to be little globules of steel, which were not only melted, but have actually undergone a considerable degree of vitrification from the intensity of the heat excited by the collision, their surface exactly resembling the slag thrown out from an iron foundery. When the face of the hammer is too hard, the particles which the flint strikes off are so small, that they are cooled before they fall into the pan; and, when the hammer is too soft, the particles driven off are so large as not to be sufficiently heated to fire the powder.

We think the conical form of the touch-hole a real improvement; but do not approve of its widening so much as it does in the patent-breech, as the force of the fuse against the opening into the pan is greatly increased by it. Gold pans are of very little advantage; for, as the iron must be softened before they can be applied, it is very liable to rust, and thus destroy its connection with the gold; the tin, also, by means of which the gold lining is fixed, is frequently melted by the fire of the fuse being directed upon the bottom of the pan, and the gold thereby detached from its hold; this will happen more readily when the touch-hole is placed very low, and when, from its form or width, the fire of the fuse is considerable. A great improvement, however, has lately been made in the manner of putting in the gold pans; they are now dove-tailed in before the lock-plate is hardened, by which means they seldom or ever blow out; and it is now found that they will stand better than any other species of pan, provided that the lock is eased from the touch-hole, or taken off when the barrel is taken out of the stock. Still we are of opinion that the steel pan will be found, with common care in cleaning it, to last as long, and to answer every purpose as well, as when lined with gold. *See* SHOOTING.

Of the Choice of Gunpowder.

The excellence of this article as to its properties, and the relative condition in which it is at the time of using it, with respect to dryness, dampness, or age, are in themselves circumstances so obviously important to the sportsman, that we have often been astonished at the almost total neglect which attends this part of the shooting science: but he may henceforward be assured, that, without

without the utmoſt circumſpection and care herein, his high-priced fowling-piece will but little avail him; mortification and diſguſt will generally enſue, and the gunſmith too frequently be blamed for the fault which the ſportſman alone has created by his own neglect.

Gunpowder is compoſed of very light charcoal, ſulphur, and well-refined ſaltpetre. The powder uſed by ſportſmen in ſhooting game, is generally compoſed of ſix parts of ſaltpetre, one of charcoal, and one of ſulphur; but theſe proportions, as well as the introduction of other ingredients, and the ſizes of the grains, are undoubtedly varied by the different manufacturers in the compoſition of the powders of the ſame denomination, and are always kept profoundly ſecret.

Powder, however well dried and fabricated it may have been, loſes its ſtrength when allowed to become damp. If daily obſervations on powder put into damp magazines, and carefully preſerved in barrels, are not ſufficient to eſtabliſh this fact, the following experiment will render it inconteſtible:—Let a quantity of well-dried powder be nicely weighed, and put into a cloſe room, where the air is temperate, and ſeemingly dry, and be left for three or four hours; on weighing it again, its weight will be increaſed. This ſame powder, expoſed to an air loaded with vapour, acquires much additional weight in a ſhort time. Now the increaſe of the weight being proportional to the quantity of vapour contained in the atmoſphere, and to the length of time that the powder is expoſed to it; it follows, that powder eaſily attracts moiſture. Wherefore, if a degree of heat ſufficient only to fire dry powder, be applied to powder that is damp, the moiſture will oppoſe the action of the fire, and the grains either will not take fire at all, or their inflammation will be ſlower: thus, as the fire will ſpread more ſlowly, fewer grains will burn; and the penetration of the fire from the ſurface to the centre of each grain, and, conſequently, their conſumption, will require more time. Whence it may be concluded, that all degrees of moiſture diminiſh the force of powder. Saltpetre, not ſufficiently refined, attracts moiſture very readily; and as the ſubſtances that render it impure leſſen the quantity of fluid, and prevent its detonation, it ſhould be refined as much as poſſible before it is employed in the fabrication of gunpowder.

The force of powder is owing to an elaſtic fluid generated at the exploſion, the ſuddenneſs of which depends upon the proportion of the ingredients, the contact between the nitrous and combuſtible particles, and the ſize of the grains, &c. Hence it may be concluded, that when ſeveral powders, equally well dried, and fired under the ſame ſtate of the atmoſphere, are compared together, that which produces the greateſt quantity of the elaſtic fluid, in a given ſpace of time, is the ſtrongeſt.

There are two general methods of examining gunpowder; one with regard to the purity of its compoſition, the other with regard to its ſtrength. Its purity is known by laying two or three little heaps near each other upon white paper, and firing one of them. For if this takes fire readily, and the ſmoke riſes upright, without leaving any droſs or feculent matter behind, and without burning the paper, or firing the other heaps, it is eſteemed a ſign that the ſulphur and nitre were well purified, that the coal was good, and that the three ingredients were thoroughly incorporated together: but, if the other heaps alſo take fire at the ſame time, it is preſumed, that either common ſalt was mixed with the nitre, or that the coal was not well ground, or the whole maſs not well beat and mixed together; and, if either the nitre or ſulphur be not well purified, the paper will be black or ſpotted.

For proving the ſtrength of gunpowder, a number of machines have been invented, all of which are liable to many objections, and, upon trial with the ſame powder, are found to give reſults ſo different, that no dependence can be placed in them; to ſo many modifications are the principal properties of powder ſubject, even in experiments conducted with the utmoſt care. Theſe variations have been attributed, by many, to the different denſity of the atmoſphere at the time of the different experiments; but the opinions upon this matter are ſo improbable in themſelves, and ſo contradictory to each other, that they claim neither attention nor belief. Thus, ſome will have it, that gun-powder produces the greateſt effect in the morning and evening, when the air is cool and denſe; whilſt others aſſert, that its force is greateſt in ſunſhine, and during the heat of the day. Mr. Robins concludes from the reſult of ſeveral hundred trials, made by him at all times of the day, and in every ſeaſon of the year, that the denſity of the atmoſphere has no effect in this matter, and that we ought to attribute the variations obſerved at theſe times to ſome other cauſe than the ſtate of the air: probably they are owing to the imperfection of the inſtrument, or to the manner in which the trial was conducted. In this ſtate of uncertainty, then, upon the theory of the effects of gunpowder, we remain at this day.

If experiments, however, are made with the prover, great care muſt be taken, not to preſs the powder in the ſmalleſt degree into the tube, but to pour it gently in; and, particularly in trying the ſtrength of different powders, which is the beſt uſe to which the inſtrument, imperfect as it is, can be applied, attention muſt be paid, that one powder is not preſſed cloſer than another at each experiment, nor the ſucceſſive experiments made until the prover is cool, otherwiſe no comparative certainty can be gained. By far the moſt certain method, however, of determining the quality of powder, is by drying ſome of it very well, and then trying how many ſheets of paper it will drive the ſhot through, at the diſtance of ten or twelve yards. In this trial we ſhould be careful to employ the ſame ſized ſhot in each experiment, the quantity both of the ſhot and the powder being regulated by exact weight; otherwiſe we cannot, even in this experiment, arrive to any certainty in comparing the ſtrength of different powders, or of the ſame powder at different times.

Powder ought to be kept very dry; every degree of moiſture injures it. Good powder, however, does not

 readily

readily imbibe moisture; and, perhaps, there is no greater proof of the bad quality of powder, than its growing damp quickly when exposed to the air: this readiness to become moist depends upon the saltpetre employed in the composition not having been freed from the common salt it contains in its crude state, and which, in consequence, has a strong attraction for watery particles.

Powder may acquire a small degree of dampness, and be freed from it again by drying, without much injury to its quality. But, if the moisture is considerable, the saltpetre is dissolved, and the intimate mixture of the ingredients thereby entirely destroyed. Drying powder with too great a heat also injures it; for there is a degree of heat, which, although not sufficient to fire the powder, will yet dissipate the sulphur, and impair the composition by destroying the texture of the grains. The heat of the sun is, perhaps, the greatest it can with safety be exposed to, and, if properly managed, is sufficient for the purpose: when this cannot be had, the heat of a fire regulated to the same degree may be employed; and for this end, a heated pewter plate is perhaps as good as any thing, because pewter retains so moderate a heat, that there can be little danger of spoiling the powder by producing the consequences before-mentioned.

It is observable, that damp powder produces a remarkable foulness in the fowling-piece after firing, much beyond what arises from an equal quantity of dry powder; and this seems to arise from the diminution of the activity of the fire in the explosion. Unless the sportsman is very particular indeed in the mode of keeping his powder, we would recommend him always to air it and his flask, before he takes the field. Flasks made of copper or tin are much better for keeping powder in, than those made of leather, or than small casks: the necks of these should be small, and well stopped with cork.

After this dissertation on gunpowder, it will naturally be expected that we point out to the sportsman the best powder for shooting; for this purpose we shall recommend the *Dartford* powder of Messrs. PIGOU and ANDREWS, for being, not only stronger, but the cleanest in burning and the quickest in firing, of any other at this time manufactured in the kingdom; and, we also venture to give it as our opinion, that the manufacturers of this powder seem to have attained, as nearly as any purpose can require, that accuracy of granulation, and of the proportions and qualities of all the ingredients, which most readily produces the destruction of all the composition, and yields the greatest possible quantity of the permanent elastic fluid in a given time; which properties alone can constitute powder of the best quality.

Of Shot.

The choice of this article is highly worthy of the sportsman's care. It should be equal, round, and void of cavities. *The patent milled shot* is, at this time, to be preferred to all other sorts, and is in such general use, that the instructions which here follow on the size of the shot to be adopted in the different chases, must be understood to relate to the *patent shot only*.

It is extremely important for the success of the chase, that the sportsman should proportion the size of his shot, as well to the particular species of game he means to pursue as to the season of killing it. Thus, in the first month of partridge shooting, shot No. 1. should be used; for since, at this time, the birds spring near at hand, and we seldom fire at more than the distance of forty paces, if the shooter takes his aim but tolerably well, it is almost impossible for a bird at this distance to escape in the circle, or disk, which the shot forms. Hares also, at this season of the year, sit closer; and, being at this time thinly covered with fur, may easily be killed with this sized shot at thirty or thirty-five paces. In snipe and quail shooting, this sized shot is peculiarly proper; for, in using a larger size, however true the sportsman may shoot, yet he will frequently miss; the objects being so small, that they have great chance of escaping in the vacant spaces of the circle or disk. Yet there are many sportsmen who shoot snipes, quails, and field-fares, in countries where they abound, with the sizes six and seven of the common shot, the last of which is called mustard-seed.

About the beginning of *October*, at which time the partridges are stronger in the wing, No. 3. is the proper shot to be used. This size seems to be the best of any; it preserves a proper medium between shot too large, and that which is too small, and will kill a hare from the distance of thirty-five to forty paces, and a partridge at fifty, provided the powder be good. It will serve also for rabbit-shooting. In short, it is excellent for all seasons, and many sportsmen use no other the season round. It is true, that distant objects are frequently missed for the want of larger shot; but then these bear no proportion to the number which are daily missed by using shot of too large a size, especially with the feathered game. If a man were to shoot constantly with shot No. 5. for one partridge which he might chance to kill with a single pellet, at the distance of eighty paces, he would miss twenty birds at fifty paces, which would in such case escape in the vacant spaces of the circle. But, if the sportsman expressly proposes to shoot wild-ducks, or hares, then, indeed, he had better use the No. 5. However, in shooting with a double-barreled gun, it may be prudent to load one of the barrels with large shot, for the necessary occasions; and, in any case large shot is required, No. 5. will be found to be better than any other; for its size is not so large as to prevent it from sufficiently garnishing, or being equally spread in the circle, and it can at the same time perform, in effect, all that a larger-sized shot can do, which garnishes but very little, if any at all.

In order, therefore, to shew clearly, at one view, the comparative difference in the garnishing of shot of different sizes, we here subjoin a table, which indicates the number of pellets precisely composing an ounce weight of each sort of shot.

PATENT

	PATENT SHOT.	
No. B. B.	1 ounce - -	60
B.	id. - -	67
1.	id. - -	86
2.	id. - -	109
3.	id. - -	160
4.	id. - -	200
5.	id. - -	256
6.	id. - -	444
7.	id. - -	530
8.	id. - -	600
	COMMON SHOT.	
No. 7.	1 ounce - -	350
6.	id. - -	260
5.	id. - -	235
4.	id. - -	190
3.	id. - -	140
2.	id. - -	110
1.	id. - -	95

The Proportions of Powder and Shot in the Charge.

To find the charge that gives the longeſt range in fowling-pieces of different dimenſions, muſt be allowed to be a diſcovery of infinite importance to every ſportſman; and, as it ſeems to be an opinion pretty generally received and eſtabliſhed, that every barrel has a particular load (not a meaſure eſtimated by any rules to be drawn from a compariſon made between the proportions of the caliber and the length of the barrel) with which it will ſhoot with greater certainty and effect; it cannot be doubted that he will make ſome experiments with his own barrels, in order to attain this end. Before we proceed, therefore, to lay down rules for the loading of fowling-pieces of different dimenſions, we beg leave to engraft an excellent principle in the practice of the artillery on this point, upon the ſhooting-ſcience. It is aſſerted, that by uſing ſmall charges at firſt, and increaſing the quantity of powder by degrees, the ranges will increaſe to a certain point; after which, if the charge be augmented, they will progreſſively diminiſh; though the recoil will ſtill continue in the ratio of the increaſe of the charge. This is a conſequence that may be deduced from a variety of experiments, and is perfectly agreeable to the principles of mechanics; ſince the recoil and the range ought to be in the reciprocal ratio of the gun and the ſhot, making allowance for the reſiſtance which theſe bodies meet with.

For a fowling-piece of a common caliber, which is from twenty-four to thirty balls to the pound weight; a drachm and a quarter, or, at moſt, a drachm and a half, of good powder; and an ounce, or an ounce and a quarter, of ſhot, is ſufficient. But when ſhot of a larger ſize is uſed, ſuch as No. 5, the charge of ſhot may be increaſed one-fourth, for the purpoſe of counterbalancing, in ſome degree, what the ſize of the ſhot loſes in the number of pellets, and alſo to enable it to garniſh the more. For this purpoſe the ſportſman will find a meaſure marked with the proper gauges very convenient to him. An inſtrument of this nature has been made by an ingenious artiſt, EGG, of the *Haymarket*.

Different opinions, however, are entertained on the proportions of the charge. Some determine the charge of a fowling-piece by the weight of a ball of the exact ſize of the caliber; eſtimating the weight of the powder at one-third of that of the ball, whether it is propoſed to ſhoot with ball or with ſhot; and the weight of the ſhot they eſtimate at a moiety more, or, at the moſt, at double the weight of the ball. This calculation comes pretty near to the propoſitions we have juſt laid down, except in the difference of ſize between the calibers twenty-four and thirty, which, notwithſtanding, is not ſufficiently great in the two caſes to require a gradation in the weight of the charge.

Others again lay down as a rule for the charge of powder, a meaſure of the ſame diameter as the barrel: and double that diameter in depth: and, for the ſhot, a meaſure of the like diameter, but one-third leſs in depth than that for the powder; this alſo agrees tolerably well with the proportions we have mentioned, at leaſt for the powder, but the meaſure of ſhot ſeems to be too ſmall. In ſhooting with a rifle-piece, ſome perſons proportion the quantity of powder to three times the quantity which the mould of the ball adapted to the piece will contain.

Although proverbs are generally true, or at leaſt poſſeſs ſome portion of truth, yet nothing is ſo glaringly abſurd, or leſs founded in rational painciples, than that old adage, "Sparing of powder, and liberal of ſhot!" a ſaying, which is not only in the acquaintance, but in the conſtant practice, of moſt ſportſmen.

As a conſequence of overloading with ſhot, the powder has not ſufficient ſtrength to throw it to its proper diſtance; for, if the object be diſtant, one half of the pellets compoſing the charge, by their too great quantity and weight, will ſtrike againſt each other, and fall by the way; and thoſe which reach the mark will have ſmall force, and will produce but little or no effect. Thus to overload is the ſtrange fancy of poachers, who imagine they cannot kill unleſs they put two ounces, or more, of large ſhot into their pieces. It is true, that they deſtroy a great quantity of game, but then it is not fairly ſhot. Such men are in ſome meaſure puniſhed by the ſevere ſtrokes they receive on the ſhoulders and cheeks, in conſequence of the exceſſive recoil.

The method of caſting ſhot is as follows:—The lead being melted, ſtirred, and ſkimmed, a quantity of powdered yellow orpiment is ſtrewed in it, as much as will lie upon a ſhilling, to twelve or fifteen pounds of lead, the whole being well ſtirred, the orpiment will flame. To judge whether there be orpiment enough in, a little of the lead is dropped in a glaſs of water, and if the drops prove round, and without tails, there is orpiment enough, and the degree of heat is as it ſhould be. This done, a copper-plate, hollow in the middle, and three inches in diameter, bored through with thirty or forty ſmall holes, according to the ſize of the ſhot, is placed on an iron frame, over a tub of water, four inches above the water; the hollow part is to be very thin:

thin: on this plate are laid burning coals, to keep the melted lead in fusion. The lead is now poured gently, with a ladle, on the middle of the plate, and it will make its way through the holes in the bottom of the plate, into the water, in round drops. Great care is taken to keep the lead on the plate in its proper degree of heat; if too cold, it will stop the holes; and, if too hot, the drops will crack and fly. The shot, thus made, are dried over a gentle fire, always stirring them that they may not melt; this done, the greater are separated from the smaller, by passing them through sieves for that purpose.

Of the Wadding.

Many sportsmen are of opinion, that the wadding, of whatever material it may be composed, or whether it be rammed loose, or tight, into the barrel, has no effect, either on the range of the shot, or the closeness with which they are thrown. Now, although it may be granted, that the material which covers the shot, and which is used only for the purpose of keeping it down, is of little importance, yet the substance which covers the powder is undoubtedly of much consequence. It should be quite close in the barrel, and that without being rammed too hard: the wadding should therefore be of a soft and tractable material, but at the same time of sufficient consistence to carry the shot in a body to a certain distance from the muzzle of the piece. For, if the wadding is rammed too close, or is of a hard and rigid substance, such as stiff brown paper, the piece will recoil, and the shot will spread more wide: if, on the contrary, the wadding is not sufficiently close, and is composed of a slight and too pliant material, such as wool or cotton, it will not be of consistence enough to carry the shot, and the discharge will lose its proper force. Besides, a certain portion of the shot, which is more immediately in contact with the wadding, will be melted by the explosion of the powder. Experience teaches, that nothing is better for wadding than soft brown paper; it combines suppleness with consistence, and moulds itself to the barrel: and it is farther observable, that such wadding never falls to the ground in less than twelve or fifteen paces from the muzzle of the piece.

In countries where orchards abound, a very fine moss, of a greenish grey colour, is found adhering to the apple-trees, which is extremely proper for wadding, and which even possesses the extraordinary quality of making the barrel less greasy and foul than paper, which contains a certain quantity of oil. Tow is also very good for this purpose. A cork wadding has also been extolled for the virtue of increasing the range and closeness of the shot of pieces; we have not made the experiment, but it seems probable, that a wadding of cork, adapted to the caliber of the piece, may produce a greater effect than a wadding of paper, in these respects, that, by stopping the barrel more hermetically, it prevents the elastic fluid, produced by the explosion of the powder, from escaping in any way, between the partition of wadding and the charge, preserves all its force to the mouth of the gun, and thereby renders the effect of the powder the greater. These principles have lately recommended the wadding of hat, cut out by punches, of a size to fit the exact caliber of the gun, to far exceed every other, and to which, therefore, we refer the reader.

We have now, however, to recommend a wadding of the cloth called fearnought, or shepherds cloth, (which is very generally known,) and punched by the same instrument as mentioned for hat-wadding; but it must not be dyed, for the acid which is used to set the colour will rust the inside of the barrel immediately in contact with it, and especially if the gun is laid by charged.

FOWLS are well-known domestic birds, without the assistance of which the farmer's stock cannot be said to be complete, the advantage of which must appear to every one who keeps them. And so equal is the distribution of their bounties, and so trifling the expence attending them, that the poorest villager may reap the same benefit from their products as the most substantial farmer.

As it would be unnecessary in this place to give a particular description of the various sorts of cocks and hens, I shall only advise the purchaser to chuse those that are the best breeders and the best layers; the oldest being always reckoned the most proper for sitting, and the youngest for laying. Care, however, must be taken that they are not kept too fat, as in this case no sort will be good for either.

The best age to set a hen for chickens is from two years old to five, and the best month to set them is *February*; though any month between that and *Michaelmas* is good.

A hen sits twenty days, whereas geese, ducks, and turkies, sit thirty. Observe to let them have always meat and drink near them while they sit, that they may not straggle from their nests, and the eggs thereby lose their nourishment.

It is said that if fowls are fed with buck or *French* wheat, or with hemp-seed, they will lay more eggs than ordinary; and buck-wheat, either the whole or ground, and made into paste, which is best, is a grain that will fat fowls or hogs very speedily; but the most common food for this purpose is barley-meal, moistened with milk or water.

The nature of the hen should be as nearly equal as possible with that of the cock; she should be working, vigilant, and laborious, both for herself and her chickens; in size the biggest and largest are the best, every proportion answerable to those of the cock, only instead of a comb she should have upon her crown a high tuft of feathers. She should have many and strong claws; but it will be better if she has no hinder claws, because they often break the eggs; and besides such as have do sometimes prove unnatural.

Hens that crow are neither good breeders nor good layers.

In chusing hens for hatching, the oldest are the best, because they are more constant, and will sit out their time; but, if you chuse for laying, take the youngest, because they are lusty, and prone to generation; but do not chuse a fat hen for either of these purposes, for, if

if ſhe be ſet, ſhe will forſake her neſt; the eggs ſhe lays will be without ſhells, and ſhe will grow ſlothful and indolent.

The beſt eggs are thoſe that are laid when the hens are a year and a half or two years old; at which time, if you would have large eggs, give them plenty of victuals, and ſometimes oats, with fenugreek to heat them; for thoſe that are fat generally lay but ſmall ones.

Mix ſome chalk with their food, or mix ſome brick with their bran, moiſtened with a little water, and give them their fill of half-boiled barley, with vetch and millet.

There are ſome hens that have the ill faculty of eating their eggs; to prevent which, take out the white of an egg, and put moiſt plaiſter round about the yolk till it grows hard; and when the hen attempts to eat, and finds ſhe cannot do it, ſhe will ſoon give over breaking her eggs. You may likewiſe pour a clear plaiſter upon the yolk of an egg, and let it harden, ſo that it may ſerve for a ſhell, and put it into the neſt; or you may ſhape an egg of plaiſter, or chalk, and let that be for a neſt-egg

Hens that have ſpurs often break their eggs, and, inſtead of hatching them, will ſometimes eat them; theſe muſt be ſcoured, as well as thoſe that ſcratch and crow like a cock; firſt by plucking the great quills out of their wings, and by feeding them with millet, barley, and paſte, cut into ſmall pieces, pounded acorns, and bran, with pottage, or crumbs of wheat-bread ſteeped in water.

They muſt be kept in a cloſe place, and reſt, and their feathers muſt be pulled from their heads, thighs, and rumps. If a hen be too fat, or has a looſeneſs, ſhe will lay wind eggs.

The beſt time to ſet a hen, that the chickens may be large and moſt kindly, is in *February*, in the increaſe of the moon, that ſhe may diſcloſe the chickens in the increaſe of the next new moon; for one brood of this month is worth three of any other. Hens, however, may ſet from *March* to *October*, and have good chickens, but not after that time; for the winter is a great enemy to their breeding. A hen ſits juſt twenty-one days; and if you ſet her upon the eggs of ducks, geeſe, or turkies, you muſt ſet them nine days before you put her own eggs to her, of which a hen will cover nineteen; whatever may be the number you ſet her with, be careful that they are freſh and free from blemiſh.

When you put the eggs under her, it will be neceſſary to make ſome particular mark on one ſide of them, and to obſerve whether ſhe turns them from that to the other: if ſhe does not, then take an opportunity, when ſhe is from them, to turn them yourſelf.

Be careful that the eggs you ſet her with be new, which may be known by their being heavy, full, and clear; neither ſhould you chuſe the largeſt, for they have often two yolks, and though ſome are of opinion that ſuch will produce two chickens, it commonly proves a miſtake; but if they do, the production is generally abortive.

If a hen is diſturbed from her neſt, ſhe will entirely forſake it; and you muſt be careful to place her meat and water near her during the time ſhe is ſitting, that her eggs may not cool while ſhe is gone to ſeek for food: if ſhe be abſent from her neſt, ſtir up the ſtraw, make it ſoft and handſome, and lay the eggs in the ſame order you found them.

It may not be improper to perfume her neſt with roſemary or brimſtone; and you muſt take care that the cock does not come at the eggs, and ſit upon them; for he will not only endanger the breaking of them, but will cauſe the hen to diſlike her neſt.

Your hen-houſe muſt be large and ſpacious, with a high roof and ſtrong walls, to keep out thieves and vermin; let there be windows on the eaſt ſide, that they may enjoy the benefit of the riſing ſun, and theſe muſt be ſtrongly lathed and cloſe ſhut; upwards, and round about the inſides of the walls upon the ground, ſhould be made large pens of three feet high for geeſe, ducks, and large fowls, to ſit in, and near unto the evings of the houſe ſhould be long perches, reaching from one ſide to the other, on which ſhould be ſet cocks, hens, capons, and turkies. At another ſide of the houſe, at the darkeſt part, over the ground-pens, fix hampers full of ſtraw for neſts, in which the hens ſhould lay their eggs; but, when they ſit to hatch chickens, then let them ſit on the ground.

There muſt be pins ſtuck in the walls, that the poultry may climb to their perches with greater eaſe.

The floor of the hen-houſe muſt not be paved, but made of earth, ſmooth and eaſy. Let the ſmaller fowl have a hole made at one end of the houſe, to go in and come out when they pleaſe, otherwiſe they will ſeek out a rooſt in other places; but for larger fowl, you may open the door every night and morning.

The moſt advantageous ſituation for a hen-houſe is near ſome kitchen, brew-houſe, bake-houſe, or kiln, where it may have the air of the fire and be perfumed with ſmoak, which to pullets is not only wholeſome, but agreeable. When your chickens are hatched, if any be weaker than the reſt, wrap them in wool, and let them receive the benefit of the fire; it will alſo be neceſſary to perfume them with roſemary. The firſt hatched chickens may be kept in a ſieve till the reſt are diſcloſed, for they will not eat for two days: ſome ſhells being harder than others, they will require ſo much more time in opening; but unleſs the chickens are weak, or the hen unkind, it will not be improper to let them continue under her, as they will thereby receive the greater nouriſhment.

Two days after they are hatched, give them very ſmall oatmeal, ſome dry, and ſome ſteeped in milk, or elſe crumbs of fine white bread: and, when they have gained ſtrength, you may give them curds, cheeſe-parings, white bread, cruſts ſoaked in beer or milk, barley-meal, or wheaten bread ſcalded, or the like ſoft meat that is ſmall, and will be eaſily digeſted.

They muſt be kept in the houſe a fortnight, and not ſuffered to go abroad with the hens to worm. Green chives chopped among their meat is very good, and will preſerve them from the rye or other diſeaſes in the head. Be careful to let them have clean water, for, if it is dirty, it will be apt to give them the pip. Neither muſt

muſt you let them feed upon tares, darnel, or cockle, for theſe are very dangerous to young ones, nor let them go into gardens till they are ſix weeks old.

Thoſe chickens you intend to cram muſt be cooped up when the dam has forſaken them, and cram them with dough made of wheaten meal and milk, which dip in the latter, and thruſt down their throats; but be careful they are not too big, as it will otherwiſe choak them. If you want to fatten chickens, put them into coops, and feed them with barley-meal. Put likewiſe a ſmall quantity of brick-duſt into their water, for that will not only give them an appetite to their meat, but will fatten them very ſoon. For in this caſe it muſt be conſidered, that all fowls and other birds have two ſtomachs; the one is their crop that ſoftens their food, and the other the gizzard that macerates it. In the laſt are generally found ſmall ſtones and ſharp ſand, which help to do that office, and without them, or ſomething of that kind, a fowl will be wanting of its appetite; for the gizzard cannot macerate or grind the food faſt enough to diſcharge it from the crop without ſuch ſand or ſtones, and therefore, in this caſe, the brick-duſt is very uſeful.

The diſeaſes incident to hens are as follow: Sitting hens are ſometimes troubled with lice, and vermin; to cure which

Pound burnt cummin and ſtaphiſagar, of each equal quantities, mix it with wine, and rub them with it, or waſh them with a decoction of wild lupines.

If hens are troubled with a looſeneſs, obſerve the following:

Mix a handful of barley-meal, and as much wax, in ſome wine; make it into a meſs, and give it them in the morning before they have any other meat, or elſe let them drink a decoction of quinces or apples.

It ſometimes happens that hens, by laying too many eggs, or ſitting too long, exhauſt their ſtrength and languiſh.

Take the white of an egg, and roaſt it till it appears burnt; mix this with an equal quantity of dried raiſins, alſo burnt, and give it them the firſt thing in the morning. *See* POULTRY.

FOX HUNTING. The ſhape and proportion of this beaſt is ſo well known, being ſo common, that it is needleſs to deſcribe him.

A fox in the firſt year is called a cub; in the ſecond a ſofe; and afterwards an old fox. It is a beaſt of chaſe, uſually very prejudicial to the huſbandmen, by taking away and deſtroying lambs, geeſe, poultry, &c.

His nature is, in many reſpects, like that of a wolf, for they bring as many cubs at a litter the one as the other; but in this they differ, the fox littering deep under the ground, but the wolf doth not.

A bitch fox is very difficult to be taken when ſhe is bragged and with cub, for then ſhe will lie near her burrow, into which ſhe runs upon hearing the leaſt noiſe: and indeed at any time is ſomewhat difficult, for the fox (as well as the wolf) is a very ſubtle crafty creature.

Fox hunting is a very pleaſant exerciſe, for by reaſon of his ſtrong, hot ſcent, he makes an excellent cry: and as his ſcent is hotteſt at hand, ſo it dies the ſooneſt.

And beſides, he never flies far before the hounds, truſting not to his legs, ſtrength, or champaign grounds, but ſtrongeſt coverts. When he can no longer ſtand before the ground, he then taketh earth, and muſt be dug out.

If greyhounds courſe him on a plain, his laſt refuge is to piſs on his tail, and flap it in their faces as they come near him; and ſometimes ſquirting his thicker excrements upon them, to make them give over the courſe or purſuit.

When a bitch fox goes a clicketting and ſeeking for a dog, ſhe cries with a hollow voice, not unlike the howling of a mad dog, and in the ſame manner ſhe cries when ſhe miſſes any of her cubs: but never makes any cry at all when ſhe is killing, but defends herſelf to the laſt gaſp.

A fox will prey upon any thing that he can overcome, and will feed upon any ſort of carrion: but their dainties, and the food they moſt delight in, is poultry.

The fox is taken with greyhounds, terriers, nets, and gins. Of terriers there are two ſorts. *See* TERRIERS.

Fox Hunting above Ground.

To hunt a fox with hounds you muſt draw about groves, thickets, and buſhes, near villages: for in ſuch places he lurks to prey upon poultry, *&c.* but if you can find one it will be neceſſary to ſtop up his earth, the night before you intend to hunt, and that about midnight, for then he goes out to prey; and this muſt be done by laying two white ſticks acroſs in his way, which will make him imagine it to be ſome gin or trap laid for him, or elſe they may be ſtopped up cloſe with black thorns and earth together.

The beſt hunting a fox above ground, is in *January*, *February*, and *March*, for then you ſhall beſt ſee your hounds hunting, and beſt find his earthing; and beſides at thoſe times the fox's ſkin is beſt in ſeaſon.

Again, the hounds hunt the fox beſt in the coldeſt weather, becauſe he leaveth a very ſtrong ſcent behind him; yet in cold weather it chills faſteſt.

At firſt only caſt off your ſure finders, and as the drag mends, ſo add more as you dare truſt them; avoid caſting off too many hounds at once; becauſe woods and coverts are full of ſundry chaſes, and ſo you may engage them in too many at one time.

Let ſuch as you caſt off at firſt, be old ſtaunch hounds which are ſure, and if you hear ſuch a hound call on merrily, you may caſt off ſome others to him, and when they run it on the full cry, caſt off the reſt, and thus you ſhould compleat your chaſe.

The words of comfort are the ſame which are uſed in other chaſes, attended with the ſame hallooings and other ceremonies.

The

The hounds ſhould be left to kill the fox themſelves, and to worry and tear him as much as they pleaſe: ſome hounds will eat him with eagerneſs.

When he is dead hang him at the end of a pikeſtaff, and halloo in all your hounds to bay him; but reward them not with any thing belonging to the fox: for it is not good, neither will the hounds in common eat it.

Of hunting a Fox under Ground.

If in caſe a fox does ſo far eſcape as to earth, countrymen muſt be got together with ſhovels, ſpades, mattocks, pickaxes, &c. to dig him out, if they think the earth not too great.

They make their earths as near as they can in ground that is hard to dig, as in clay, ſtony ground, or amongſt the roots of trees: and their earths have commonly but one hole; and that is ſtraight a long way in before you come at their couch.

Sometimes craftily they take poſſeſſion of a badger's old burrow, which hath a variety of chambers, holes, and angles.

Now to facilitate this way of hunting the fox, the huntſmen muſt be provided with one or two terriers to put into the earth after him, that is to fix him into an angle: for the earth often conſiſts of many angles: the uſe of the terrier is to know where he lies, for as ſoon as he finds him he continues baying or barking, ſo that which way the noiſe is heard that way dig for him.

But to know the manner of entering and farther uſe of theſe ſorts of dogs, *ſee* TERRIER.

However I ſhall here add, that as in the firſt place you muſt have ſuch as are able to dig, ſo your terriers muſt be furniſhed with bells hung on collars, to make the fox bolt the ſooner; beſides the collars will be ſome ſmall defence to the terriers.

The inſtruments to dig with are theſe; a ſharp pointed ſpade, which ſerves to begin the trench, where the ground is hardeſt, and broader tools will not ſo well enter; the round hollowed ſpade, which is uſeful to dig among roots, having very ſharp edges; the broad flat ſpade to dig withal, when the trench has been pretty well opened, and the ground ſofter; mattocks and pickaxes to dig in hard ground, where a ſpade will do but little ſervice; the coal rake to cleanſe the hole; and to keep it from ſtopping up, clamps, wherewith you may take either fox or badger out alive to make ſport with afterwards.

And it would be very convenient to have a pail of water to refreſh your terriers with, after they are come out of the earth to take breath.

After this manner you may beſiege a fox, &c. in their ſtrongeſt holes and caſtles, and may break their caſemates, platforms, parapets, and work to them with mines and counter-mines till you have obtained what you deſired. But for the managing theſe dogs, *ſee* TERRIERS.

To deſtroy Foxes.

Take a ſheep's paunch, and tie it to a long ſtick, then rub your ſhoes well upon it, that he may not ſcent your own feet; draw this paunch after you as a trail, a mile or more, and bring it near ſome thick-headed tree; leave your paunch, and get into the tree with a gun, and as it begins to be dark, you will ſee him come after the ſcent of the mail, where you may ſhoot him: draw the trail if you can to the windward of the tree.

The beſt way is, to ſet a ſteel trap in the plain parts of a large field, out of the way of all paths, yet not near a hedge, or any ſhelter; then open the trap, ſet it on the ground, and cut out juſt the form thereof in a turf, and take out as much earth as to make room to ſtay it; then cover it again very neatly with the turf you cut out; and as the joint of the turf will not cloſe exactly, get ſome mold of a new caſt up mole-hole, and put it cloſe round the turf, ſticking ſome graſs in it as if it there grew; make it curious and neat, that it might even deceive yourſelf. Ten or twelve yards from the trap, three ſeveral ways, ſcatter ſome of the mole-hill mold very thin, on a place fifteen or ſixteen inches ſquare; then on theſe places, and where the trap is placed, lay three or four ſmall bits of cheeſe, and then with a ſheep's paunch draw a trail of a mile or two long to each of the three places, and from thence to the trap, that the fox may come to one of theſe places firſt, for then he will approach the trap more boldly; and thus you will never fail of him. Be ſure let your trap be looſe, that he may draw it to ſome hedge or covert, or he will bite off his leg and be gone.

To make a Spring Trap.

Tie a ſtring to ſome pole ſet faſt in the ground, and to this ſtring make faſt a ſmall, ſhort ſtick, made thin on the upper ſide, with a notch at the lower end of it; then ſet another ſtick faſt in the ground, with a nitch under it; then bend down the pole, and let both the nicks or notches join as ſlight as may be; then open the nooſe of the ſtring, and place it in the path or walk; where if you lay pieces of cheeſe, fleſh, and ſuch like, it will entice him that way.

Or, greaſe the ſoles of your ſhoes with hog's fat a little broiled, and as you come from the wood, drop in ſeveral places as you paſs, a piece of roaſted ſwine's liver, dipt in honey, drawing after you a dead cat, and he will follow you, ſo that you may ſhoot him.

A Hook to take a Fox tied to a Tree.

This hook is made of large wire, and turns on a ſwivel like the collar of a greyhound; it is frequently uſed in catching wolves, but oftener for the fox. They hang

hang it from the ground so high that he must leap to catch it; and bait it with flesh, liver, cheese, &c. and if you run a trail with a sheep's paunch as before directed, it will draw him the more easily to the bait.

FOILING (with Hunters) the footing and treading of deer that is on the grass, and scarce visible.

FRANK CHASE, is a liberty of free chase in a circuit adjoining to a forest, by which all men, though they have land of their own within that compass, are forbidden to cut down wood, &c. without the view of the forester.

FRAY. A deer is said to fray her head, when she rubs it against a tree to renew it, or cause the pills of her new horns to come off.

FREAM (with Hunters) a term used of a boar, that makes a noise at rutting time.

FREE WARREN, the power of granting or denying licence to any to hunt or chase in such or such lands.

To FRILL (in Falconry) a term used of a hawk; as the hawk frills, *i. e.* trembles or shivers.

FROG (among Farriers) the same as FRUSH.

FROGS; to destroy which, take a sheep, ox, or goat's gall, and bruise it by the water-side; the frogs will gather to it, and it will kill them.

To prevent their croaking, set a candle and lanthorn upon the side of the water or river that waters your garden.

Toads will not come near your garden, if you plant sage and rue round about it.

FROTH. The mouth of a horse should be full of froth, and if he continually champ upon the mouth of his bitt, it is a token of a good horse: for few bad ones have this action; besides that, his mouth being always moist, will not so easily over-heat, and it is a sign that the bitt gives him pleasure.

If the froth be thin or fluced, and of a pale grey, or yellowish colour, it denotes a bad tempered brain; but if it be white and thick, cleaving to his lips and branches of the bridle, then you are to look upon the mouth as fresh, and that the horse is of a strong constitution and sound in his body.

FROWNCE } a disease incident to hawks, pro-
FROUNCE } ceeding from moist and cold humours, which fall down from their heads to the palate and root of their tongue, by which means they lose their appetite, and cannot close their clap.

Some call this the eagles bane, for they seldom die of age, but of the over-growing of their beaks.

FRUSH, OR FROG OF A HORSE, is a sort of tender horn which arises in the middle of the sole, and at some distance from the toe, divides into two branches, running towards the heel in the form of a fork. Thus they say,

Look after this horse, for the flesh is run in upon the frush; I see an excrescence, or sprouting of flesh in that part.

There is a fig in that sorrel's frush; and this roan has a scabbed frush; and here is another that has a fat frush, *i. e.* a frush that is too thick and too large.

FRUSH, a disorder incident to horses, *see* SCABBED HEELS.

FULMART, OR FUMER; a pole-cat, fitch or fitchow.

FUMETS, the ordure or dung of a hart, the same as fewmets.

FUNDAMENT, ON FALLING OF, IN HORSES. This may be occasioned by long continued looseness or scouring, and horses of a lax and washy constitution are most subject to it. It is produced by long journeys, or hard labour with insufficient nourishment. The defect is frequent with over-driven pigs, which I have often attempted to cure, with very ill success. SOLLEYSEL says, it was sometimes brought on horses, in his time, by docking.

In the Cure no time ought to be lost. If the gut descend to any great length, and be much swelled and inflamed, wash with warm milk and *aqua vegeto* equal parts, and suspend it; repeat the washing, and when the inflammation is abated, anoint with oil of roses, chamomile, or dill, and a small quantity of Friar's-balsam, and gently with a warm linen cloth return the gut to its proper place. Bathe the fundament frequently with the following mixture: Red-Port wine and camphorated spirits, a quarter of a pint each; GOULARD's extract, forty drops. A composition of oak-bark, flour, honey, and turpentine, applied frequently to the fundament. Mashes of malt, or corn and bran, and the animal kept very quiet, with the most gentle usage. Should the gut not remain, or fall down in exercise, and shrink up again in the stable, it is the sign of a fistula, and the only remedy is excision, which must be performed with a red-hot knife, a ligature being previously made. The wound being healed, a pretty long run at grass or straw yard; previous to which it will not be safe to work the horse.

FUNDAMENT, FALLING OUT OF, IN SWINE; the Cure:

Put it up as well as you can with your hand, dipt in oil of linseed or other oil, when you have first sprinkled it with powder of aloes and alum.

FUNGUS OR PROUD-FLESH, in horses or other animals; to remove it,

Take of rosin and common turpentine, of each four ounces, honey two ounces, sheep-suet three ounces; melt the rosin and turpentine first, then add the honey and sheep's-suet; and lastly, stir in by degrees (and till the whole is almost cold) half an ounce of powdered *French* verdigris, and keep for use; but, if it is too stiff for winter, you may add some hog's lard or fresh butter. This ointment is recommended by Mr. BRACKEN, who says there is another ointment much like this in Capt. BURDEN's *Pocket-Farrier*, taken from DE GREY; but he thinks there is too much hog's-lard in that composition, which makes it generate fungus flesh, or what people call proud-flesh; but, if the ointment before prescribed be thought too stiff, it may be softened with fresh butter, and therefore better prevents superfluous flesh.

FUZEE (in Farriery) two dangerous splents joining from above downwards. They differ from screws or thorough splents in this, that the latter are placed on two opposite sides of the legs. *See* SPLENT.

GABLOCKS,

GABLOCKS, artificial ſpurs, made either of iron, braſs, or ſilver, and fixed on the legs of game cocks; ſome call them gaffs.

GAGG-TEETH, (in Farriery) is a defect that rarely happens to young horſes, and to be diſcovered by putting ſomething into the mouth and looking at the large grinders, which in this caſe appear unequal, and in eating catch hold of the inſide of the cheeks, cauſing great pain, and making them refuſe their food.

GAIT OR GATE, is the going, or pace of a horſe. Hence they ſay this horſe has a good gait, but the other has a broken gait; this horſe goes well, but the other does not.

GALLING OF A HORSE'S BACK. To prevent it, take a lamb's ſkin, well furniſhed with hair, and fit it neatly beneath the pannel of the ſaddle, ſo that the hairy ſide may be next the horſe.

This does not harden with ſweat, and ſo not only keeps that part from galling, but is good for ſuch horſes as have been lately cured, which would otherwiſe gall again.

After a journey you ought to take off the ſaddle and feel the horſe's back, whether he has been pinched or galled or not, which will be the beſt diſcovered after he has ſtood an hour or two unſaddled, by the ſwelling of the part oppreſſed.

If it be only ſwelled, fill a bag with warm dung, and tie it upon the ſwelling, which will not only prevent it from growing worſe, but alſo probably quite diſperſe it.

Or you may rub and chaſe the ſwelling with good brandy, or ſpirit of wine, and having ſoaked the place well with it, ſet fire with a lighted paper to what remains of it, and the ſwelling will diſappear, when the fire extinguiſhes of itſelf; but if the ſkin be broke, waſh it with warm claret, mixed with a fourth part of ſallad oil, or freſh butter; or bathe it often with brandy if the horſe will endure it.

When a horſe's back is galled upon a journey, take out a little of the ſtuffing of the pannel over the ſwelling, and ſew a piece of ſoft white leather on the inſide of the pannel; anoint the part with ſalt-butter, and every evening wipe it clean, rubbing it till it grows ſoft, anointing it again with butter, or for want of that with greaſe: waſh the ſwelling, or hurt, every evening with cold water and ſoap, and ſtrew it with ſalt, which ſhould be left on till the horſe is ſaddled in the morning.

GALLS. *See* HARNESS.

GALLOP, is a motion of a horſe that runs at full ſpeed, in which making a kind of leap forwards, he lifts both his legs almoſt at the ſame time; when theſe are in the air, juſt upon the point of touching the ground, he lifts both his hind legs almoſt at once.

Of a horſe that has an eaſy light gallop, that gallops fine, they ſay, he gallops upon his haunches, he does not preſs heavy upon the bridle, he bends his fore legs well, he has a good motion with him, he is well coupled, keeps his legs united.

The great gallop, or the hunting gallop; or the gallop with a long ſtretch, or gallop with all the heels, *i. e.* full ſpeed.

A ſhort light gallop, *i. e.* a ſlow gallop.

GALLOP, is the ſwifteſt natural pace of a horſe.

Here you are to take notice, that a horſe in galloping forwards may lead with which fore leg he pleaſes, though horſes do it moſt commonly with their right fore leg; but with whatever fore leg they lead, the hind leg of the ſame ſide muſt follow it, otherwiſe their legs are ſaid to be diſunited.

In order to remedy this diſorder, you muſt ſtay your horſe a little upon the hand, and help him with the ſpur on the contrary ſide to that in which he is diſunited.

As for example: if he be diſunited on the right ſide, help him with the left ſpur, by ſtaying him (as before) upon the hand a little, and alſo helping him at the ſame time with the calves of the legs.

And farther, in a circle a horſe is confined to lead always with his fore-leg within the turn, otherwiſe he is ſaid to gallop falſe; but in all caſes the hind leg of the ſame ſide muſt ever follow.

Laſtly, when you make trial of a galloper, obſerve if he performs it equally, and puſh it on ſomewhat hard, that you may know by his ſtop whether he have ſtrength and vigour, which is termed a fund or ſource, and if he be alſo ſenſible of the ſpur.

GALLOP, OR CANTERBURY-RATE, is a pace between a full ſpeed and a ſwift running.

GALLOPADE. The fine gallopade, the ſhort gallop, the liſtening gallop, the gallop of the ſchool: it is a hand gallop, or gallop upon the hand, in which a horſe galloping upon one or two treads, is well united, and well raccourci knit together, well coupled, and well ſet under him. Hence they ſay,

This horſe makes a gallopade, and works with one haunch, *i. e.* inſtead of going upon one tread, whether right out or in a circle, has one haunch kept in ſubjection, let the turn or change of the hand be what it will; ſo that the inner haunch which looks to the center of the ground, is more narrowed, and comes nearer to that center than the ſhoulder does: and thus the horſe does not go altogether to that ſide, and his way of working is a little more than one tread, and ſomewhat leſs than two.

The difference between working with one haunch in, and galloping upon volts, and managing upon *terra a terra*, is in galloping upon volts, and working *terra a terra*; the two haunches are kept ſubject, and the two haunches are in, that is, within the volt; but in galloping a haunch in, only one is kept ſubject.

To gallop united, to gallop upon a good and right foot, is, when a horſe that gallops right out, having cut the way, or led with either of his fore feet, continues to lift that ſame leg always firſt, ſo that the hinder leg, of a ſide with the leading fore-leg, muſt likewiſe be raiſed ſooner than the other hind leg.

For inſtance; if the right fore leg leads before the left, then the right hind leg muſt likewiſe move ſooner than the left hind leg; and in this order muſt the horſe continue to go on.

To gallop faſt, to diſunite, to drag the haunches, to change feet, to go or run upon falſe feet, to gallop upon the falſe foot, is when the galloper having led

 with

with one of the fore legs, whether right or left, does not continue to make that leg always set out first, nor to make the hind-leg of a side with the leading leg, to move before its opposite hind leg; that is to say, the orderly going is interrupted.

A horse that gallops false, gallops with an unbecoming air, and incommodes the rider.

If your horse gallops false, or disunite, and if you have a mind to put him upon keeping the right foot, and uniting well his haunches, you must bring to with the calves of your legs, and then with the out spur, that is, the spur that is contrary and opposite to the side upon which he disunites: so that if he disunites to the right, you must prick him with the left heel.

GAME LAWS. For the information and satisfaction of my readers, I have here inserted abstracts of all the Acts of Parliament relating to the game, whereby they and sportsmen may know the respective times when they are to begin, and when they are to leave off sporting, and also the penalties and punishments of infringing or breaking the above Acts. Agreeable to the Act of 24 Geo. III. certificates required before the first day of *October*, 1784, shall bear date on the day of the month on which the same shall be issued, and shall remain in force until the first day of *July* next following. No certificate shall issue between the first day of *October*, 1784, and the first day of *March* 1785; and every certificate which shall issue after the said first day of *March*, 1785, shall be issued between the first day of *March* and the first day of *July* in each year, and shall bear date on the day of the month on which the same shall be issued, and shall be in force for twelve calendar months, commencing from the date: and if any clerk of the peace, his deputy, or steward clerk, issuing certificates, otherwise than directed, to forfeit 50*l.* 24 Geo. III. *sess.* 2. *c.* 43. *s.* 5. But certificates may issue to any person beyond the seas, who hath or shall have, in any year, first arrived into *England*, any time after the first day of *July* in such year; but in every such case, the cause shall be specified, either in the body or at the foot of such certificate; to bear date on the day it is issued, being stamped with double duties, and to be in force till the first day of *July* next following the date thereof, 24 Geo. III. *sess.* 2. *c.* 43. *s.* 6. Every qualified person, after the said first day of *October*, 1784, shooting at, killing, taking, or shooting any pheasant, partridge, heath-fowl, or black game, or any grouse, or red game, or any other game, or killing, taking or destroying, any hare, with any greyhound, hound, pointer, spaniel, setting dog, or other dog, without having obtained such certificate, shall forfeit the sum of 50*l.* 24 Geo. III. *sess.* 2. *c.* 34. *s.* 7. Clerk of peace, *&c.* shall on or before *November* 1, 1784, and in every subsequent year, on or before *August* 12, in each year, make out and transmit to the Stamp-office, *London*, alphabetical lists of the certificates so granted by them, distinguishing the duties paid on each respective certificate so issued, and on delivery thereof the receiver-general of the stamp duties shall pay to clerk of peace, *&c.* for the same one farthing a name; and in case of neglect or refusal, or not inserting a full, true and perfect account, he shall forfeit 20*l.* 24 Geo. III. *sess.* 2. *c.* 43. *s.* 9. Lists may be inspected at Stamp-office for 1*s.* each search, 24 Geo. III. *sess.* 2. *c.* 43. *s.* 10. If any qualified person, or having a deputation, shall be found in pursuit of game, with gun, dog, or net, or other engine for the destruction of game, or taking or killing thereof, and shall be required to shew his certificate, by the lord or lady of the manor, or proprietor of the land whereon such person shall be using such gun, *&c.* or by any duly appointed game-keeper, or by any qualified and certified person, or by any officer of the stamps, properly authorized by the commissioner, he shall produce his certificate; and if such person shall refuse, upon the production of the certificate of the person requiring the same, to shew the certificate granted to him for the like purpose; or in case of not having such certificate to produce, shall refuse to tell his christian and surname, and his place of residence, and name of the county where his certificate was issued, or shall give in any false or fictitious name, he shall forfeit 50*l.* 24 Geo. III. *sess.* 2. *c.* 43. *s.* 12. Certificates do not authorize any person to shoot at, kill, take or destroy any game, at any time that is prohibited by law, nor give any person a right to shoot at, *&c.* unless he be duly qualified by law, 24 Geo. III. *sess.* 2. *c.* 43. *s.* 13. No certificate, obtained under any deputation, shall be pleaded or given in evidence, where any person shall shoot at, *&c.* any game out of the manor or lands for which it was given, 24 Geo. III. *sess.* 2. *c.* 43. *s.* 14.

Destroying conies, transportation, 5 Geo. III. *c.* 14. Robbing warrens, felony without clergy, 9 Geo. I. *s.* 22. Killing them in the night, or endeavouring to kill them, fine of 10*s.* or commitment, 22 and 23 Car. II. *c.* 25. *s.* 5, 6. Unqualified persons using guns to kill the same may be seised, 3 Jac. I. *c.* 13. *s.* 5. Stalking deer without leave, 10*l.* 19 Hen. VII. *c.* 11. Hunting or killing them, 10*l.* costs, and sureties for good behaviour, 5 Eliz. *c.* 21. Buck-stalls or engines kept by unqualified persons, may be seized, 3 Jac. I. *c.* 13. Selling or buying them to sell again, 40*s.* 3 Jac. I. *c.* 27. Coursing or killing them without consent, 20*l.* 13 Car. II. *c.* 10. Hunting, taking, killing, or wounding, 30*l.* or transportation, 3 Will. III. *c.* 10. 5 Geo. I. *c.* 15. 9 Geo. I. *c.* 22. 10 Geo. II. *c.* 32. Destroying pales or walls of inclosed grounds without consent, 30*l.* 5 Geo. I. *c.* 15. *s.* 6. Keeper of park killing or taking them, 50*l.* 5 Geo. I. *c.* 15. Robbing places where kept, felony without clergy, 9 Geo. I. *c.* 22.

All lords of manors or other royalties may appoint game-keepers, 22 and 23 Car. II. *c.* 25, *s.* 2. and empower them to kill game, 2 *Burn's Just.* 225. But if he disposes of game without the lord's consent, he shall be committed for three months, and kept to hard labour, 5 Anne, *c.* 14. *s.* 4. But no lord shall make above one game-keeper within one manor, with power to kill game, and his name shall be entered with clerk of peace; certificate whereof shall be granted by clerk of peace, on payment of one shilling. Unqualified game-keepers killing or selling hare, pheasant, partridge, moor, heath-game or grouse, he shall forfeit 5*l.* by

by distress, or commitment for three months, for the first offence, and for every other four, 9 ANNE, *c.* 21. *s.* 1. No lord shall appoint unqualified game-keeper, or one who is not *bona fide* servant to such lord, or immediately employed and appointed to take and kill game for sole use of lord; other persons under colour of authority for taking and killing game, or keeping any dogs or engines whatsoever for that purpose, shall forfeit 5*l.* In like manner, 3 GEO. I. *c.* 11. *s.* 1. Every deputation of a game-keeper to be registered with clerk of the peace, or in the sheriff or steward's court books of the county where lands lie, and annually take out certificate thereof, stamped with an half-guinea stamp, 24 GEO. III. *ses.* 2. *c.* 43. *s.* 1. Every game-keeper, from and after the passing of this act, who shall so deliver his name and place of abode as aforesaid, and require a certificate, shall be annually intitled thereto, stamped as before directed from clerk of peace or his deputy, sheriff, or steward's clerk, to the effect of the form in the act set forth, 24 GEO. III. *ses.* 2. *c.* 43. *s.* 3. Clerk of peace, *&c.* after signing certificate, shall issue same stamped to person registering deputation, on requiring same, for which he may receive 1*s.* 24 GEO. III. *ses.* 2. *c.* 43. *s.* 4. Neglecting, or refusal of issuing certificates, incurs a forfeiture of 50*l.* 24 GEO. III. *s.* 2. *c.* 43. *s.* 4. recoverable in courts of *Westminster*, court of Session, of Justiciary, or Exchequer in *Scotland*, by action of debt or information, for the use of the plaintiff, with double costs of suit, 24 GEO. III. *s.* 2. *c.* 43. *s.* 16. And moreover be liable to pay the duty on such certificate, 24 GEO. III. *s.* 2. *c.* 43. *s.* 4. Clerk of peace, *&c.* may issue his certificate to any game-keeper first appointed in any year after first *July* in that year, 24 GEO. III. *s.* 2. *c.* 46. *s.* 6. If any lord or lady of a manor, or proprietor of land, shall make any new appointment of a game-keeper, and shall register deputation with clerk of peace, *&c.* and obtain a new certificate thereon, the first shall be void; any person acting under the same, after notice, shall be liable to all the penalties of the game laws, and those against unqualified persons, 24 GEO. III. *s.* 2. *c.* 43. *s.* 11.

Every person tracing or coursing hares in the snow shall be committed for one year, 31 ELIZ. *c.* 5. unless he pay to churchwardens, for the use of the poor, 20*s.* for every hare, or become bound by recognizances with two sureties in 20*l.* a-piece, not to offend again; and every person taking or destroying hares with any sort of engine, shall forfeit for every hare, 20*s.* in like manner, 1 JAC. I. *c.* 27. *s.* 2. Persons found using engines liable to punishment inflicted by 31 ELIZ. *c.* 5. See above, and 22 and 23 CAR. II. *c.* 25. *s.* 6. Unqualified persons keeping or using shooting dogs, or engines to kill or destroy hares, shall forfeit 5*l.* to the informer, with double costs, 2 GEO. III. *c.* 19. by distress, or committed for three months for first offence, and for every other four, 5 ANNE, *c.* 14. *s.* 4. Taking or killing hare in the night-time, forfeit 5*l.* 9 ANNE, *c.* 25. *s.* 3. The whole to the informer, with double costs, 2 GEO. III. *c.* 19. as directed by 5 ANNE, *c.* 14. 9 ANNE, *c.* 25. *s.* 3. Killing or taking with gun, dog, or engine, hare in the night, between the hours of seven at night and six in the morning, from *October* 12 to *February* 12, and between the hours of nine at night and four in the morning, from *February* 12 to *October* 12, or in the day-time upon *Sunday* or *Christmas-day*, to forfeit not less than 10*l.* nor more than 20*l.* for the first offence; nor less than 20*l.* nor more than 30*l.* for the second offence; and 50*l.* for the third offence; with costs and charges; and, upon neglect or refusal be committed for six or twelve calendar months, and may be publicly whipped; final appeal to quarter sessions, 13 GEO. III. *c.* 80. Persons armed and disguised stealing them, felony without clergy, 9 GEO. I. *c.* 22. Higler, chapman, carrier, inn-keeper, victualler, or alehouse-keeper, having in his custody, or buying, selling, or offering to sale, any hare, unless sent up by some person qualified, (or any person selling, exposing, or offering to sale, hares, 28 GEO. II. *c.* 22.) shall forfeit for every hare, 5*l.* the whole to informer, 2 GEO. III. *c.* 19.

For preserving heath-cocks or polts, no person whatsoever, on any waste, shall presume to burn, between *February* 2 and *June* 24, any grig, ling, heath, furze, goss, or fern, on pain of commitment for a month, or ten days, to be whipped and kept to hard labour, 4 and 5 W. and M. *c.* 23. *s.* 11. Shooting heath-cocks, grouse, or moor-game, contrary to 1 JAC. I. *c.* 27. *s.* 2. and killing any of them in the night, or using gun, dog, or engine, with such intent, contrary to 9 ANNE, *c.* 25, and 13 GEO. III. *c.* 80. And carriers and others having such game in their possession, contrary to 9 ANNE, *c.* 14. are liable to the same penalties, and recoverable in same manner as those offences are subjected to in regard to shooting, *&c.* hares.

Officers of the army, without leave of the lord of the manor, destroying coney, hare, pigeon, pheasant, or partridge, or his Majesty's game, shall forfeit 5*l.* to the poor; and the commanding officer, for every offence, committed by any soldier under his command, shall forfeit 20*s.* in like manner; and if, upon demand, he shall not in two days pay said penalty, he shall forfeit his commission. *Vide* The yearly Mutiny Act.

Taking partridges, by nets or other engines, upon another's freehold, without special licence of owner of same, 10*l.* half to him who shall sue, and half to owner or possessioner, 11 HEN. VII. *c.* 17. Shooting at, *&c.* partridges, with gun or bow, or taking, *&c.* them with dogs or nets, by 7 JAC. I. *c.* 11. or taking their eggs out of their nests, liable as persons shooting at, *&c.* hares, and also 20*s.* for every bird or egg, as is shewn in the preceding pages concerning Hares. Selling, or buying to sell again, a partridge, (except reared and brought up in houses, or from beyond sea) forfeit for every partridge 10*s.* half to him who will sue, and half to informer, 1 JAC. I. *c.* 27. *s.* 4. Taking, killing, or destroying partridges in the night forfeits for every partridge, 10*s.* half to him who will sue, and half to lord of the manor, unless he license, or cause the said taking and killing, in which case his half shall go to the poor, recoverable by churchwarden; and if not paid in ten days, to be imprisoned for one month; and moreover, shall give bond to justice, with good sureties not to offend again for two

ears, 23 ELIZ. *c.* 10. To kill a partridge in the ight is 5*l.* penalty, 9 ANNE, *c.* 25. *s.* 3. the whole whereof is given to the informer, 2 GEO. III. *c.* 19. and may be recovered within three months, 5 ANNE, *c.* 14. before a justice of the peace, or within six months, by action in Court of Record at *Westminster*, 9 ANNE, *c.* 25. with double costs, 2 GEO. III. *c.* 19. Keeping or using any greyhounds, setting-dogs, or any engine for destroying partridges, 5*l.* to be levied and recovered as the like penalty for killing hares, by 5 ANNE, *c.* 4. *s.* 4. as before is shewn. Penalties for using gun, dog, snare, net, or other engine, with intent to take or destroy partridges in the night, or on *Sunday* or *Christmas-day*, same as using them against hares, by 13 GEO. III. *c.* 80. as in the foregoing page. Carriers and others having partridges in their possession, liable to same forfeitures as having hares; and the same laws against shooting them as for shooting hares.

All the laws respecting the penalties and recovery of them, for taking them by nets, snare, or other engines, without license of the owner, by HEN. VII. *c.* 17. And for shooting, or destroying them with dogs or snares, &c. by 7 JAC. I. *c.* 11. or taking their eggs, by 1 JAC. I. *c.* 27. *s.* 2. And for selling, and buying them to sell again, by last cited act (except that the penalty for a pheasant is 20*s.*) and for destroying them in the night (excepting as aforesaid) by 23 ELIZ. *c.* 10. 9 ANNE, *c.* 25. *s.* 3. and 13 GEO. III. *c.* 80. And for keeping or using sporting-dogs or engines for destroying them, by 5 ANNE, *c.* 14. *s.* 4. Or for using gun, dog, or net, for destroying them on *Sunday*, or *Christmas-day*, by 13 GEO. III. *c.* 80. and for carriers and others having them in their possession; all these laws are *mutatis mutandis verbatim*, the same as those respecting partridges.

Person prosecuted for any thing done in pursuance of this act, he may plead the general issue, and give the special matter in evidence for his defence; and if upon trial verdict pass for defendant, or plaintiff become nonsuited, defendant shall have treble costs of plaintiff, 24 GEO. III. *ses.* 2. *c.* 3. *s.* 24.

Qualifications for killing game (besides the late new tax) are, 1. Having a freehold estate of 100*l.* *per annum*, 22 and 23 CAR. II. *c.* 25. 2. A leasehold estate, for 99 years, of 150*l.* *per annum*. 3. The eldest son or heir-apparent to an esquire, or person of superior degree. 4. The owner or keeper of a forest, park, chase, or warren. See BL. *Com.* 174, 175. Unqualified person keeping dogs or engines to destroy the game, to forfeit 5*l.* 5 ANNE, *c.* 14. Restrictions in the laws concerning the preservation of game, seems to affect all persons whomsoever, whether qualified or not, 2 BURN's *Just.* 219, 248. No person (other than the King's son) unless he have lands of freehold to the value of five marks a-year, shall have any game of swans, on pain of forfeiting them, half to the King, and half to any person (so qualified) who shall seize the same, 22 EDW. IV. *c.* 6. Any gentleman or other that may dispend 40*s.* a-year freehold, may hunt and take wild fowl with their spaniels only, without using a net or other engine, except the long-bow, 25 HEN. VIII. *c.* 11. From persons not having lands of 40*l.* a-year, or not worth in goods 200*l.* using gun or bow to kill deer, any person having 100*l.* may seize same to his own use, 3 JAC. I. *c.* 13. Killing in the night, between the hours of nine at night, and four in the morning, from *February* 12 to *October* 12, any game, by any person, whether qualified or not, subject to same penalties as killing hares at that time of night, by 13 GEO. III. *c.* 80. as has been already shewn. Every person qualified to kill game, shall, previous to his shooting at, killing, or destroying any game, deliver in writing his name and place of abode, if in *England*, to the clerk of the peace, if in *Scotland*, to the sheriff or steward clerk of the county where resident, and annually take out a certificate thereof, stamped with a two guinea stamp, 24 GEO. III. *ses.* 2. *c.* 43. *s.* 1. and from and after the passing of this act, every such qualified person who shall so deliver in *England* or *Scotland*, his name and place of abode as aforesaid, and require a certificate thereof, shall be annually entitled thereto, stamped as aforesaid, from clerk of peace or his deputy, sheriff, or steward clerk, to the effect of the form in the act set forth, 24 GEO. III. *ses.* 2. *c.* 43. *s.* 3. Clerk of peace, &c. after he shall have signed such certificate, shall forthwith issue the same, stamped, to the person so delivering in his name and place of abode, and requiring the same, for which he shall be entitled to receive 1*s.* for his own trouble, 24 GEO. III. *ses.* 2. *c.* 43. *s.* 4. Neglect in, or refusal of issuing certificates, incurs like forfeiture, and which are recoverable in like manner, and with same costs as to game-keepers, which see; besides liable to pay the duty on such certificate, 24 GEO. III. *ses.* 2. *c.* 43. *s.* 4.

The time for sporting in the day is, from one hour before sun-rising, until one hour after sun-setting, 10 GEO. III. *c.* 19. The sporting season for bustards is from *December* 1 to *March* 1. For grouse or red-game, from *August* 12 to *December* 10. Hares may be killed all the year, under the restriction in 10 GEO. III. *c.* 19. Heath-fowl, or black game, from *August* 20 to *December* 20, 13 GEO. III. *c.* 55. Pheasants, from *October* 1 to *February* 1. Partridges, from *September* 1 to *February* 12, 2 GEO. III. *c.* 19. Fowls, widgeons, wild-ducks, wild-geese, at any time, but in *June*, *July*, *August*, and *September*, 10. GEO. III. *c.* 32.

From and after *October* 1, 1784, in all cases where the penalty by this act does not exceed 20*l.* justice of peace shall, upon information or complaint, summon the party and witnesses to appear, and proceed to hear and determine the matter in a summary way, and upon due proof by confession, or upon the oath of one witness, give judgment for the forfeiture; and issue his warrant for levying the same on offender's goods, and to sell them, if not redeemed within six days, rendering to party overplus, and if his goods be insufficient to answer the penalty, shall commit offender to prison, there to be for six calendar months, unless penalty be sooner paid; and if party be aggrieved by the judgment, he may, upon giving security amounting to value of forfeiture, with the costs of affirmance, appeal to the next general quarter sessions, when it is to be heard and finally determined; and in case the judgment be affirmed, sessions may award such costs incurred by appeal, as to themselves shall seem meet, 24 GEO. III. *ses.* 2. *c.* 43. *s.* 19.

Witnesses

Witneſſes neglecting or refuſing to appear, without reaſonable excuſe, to be allowed of by the juſtice, ſhall reſpectively forfeit, for every offence, 10*l.* to be levied and paid as other penalties, by this act 24 Geo. III. *ſeſ.* 2. *c.* 34. *ſ.* 20. Juſtice to cauſe conviction to be made out to the effect of the form ſet forth in the act 24 Geo. III. *ſeſ.* 2. *c.* 43. *ſ.* 21. Juſtice may mitigate penalties as he thinks fit, ſo that the reaſonable coſts and charges of officers and informers, for diſcovery and proſecution, be always allowed, over and above mitigation, and ſo as ſame does not reduce the penalty to leſs than a moiety, over and above the coſts and charges, 24 Geo. III. *ſſ.* 2. *c.* 43. *ſ.* 22.

It is felony to take any ſwans that be lawfully marked, though they be at large; and ſo it is with unmarked ſwans, if they be domeſtical or tame, ſo long as they keep within a man's manor, or within his private rivers, or if they happen to eſcape from them, and are purſued and taken, and brought back again; but if they be abroad, and attain their natural liberty, then the property of them is loſt, and ſo long felony cannot be committed by taking them. Burn's *Juſt. Tit.* Game

Same laws againſt ſhooting wild fowls as for ſhooting hares, by 1 Jac. I. *c.* 27. *ſ.* 2.

I have here alſo added an abſtract from the late act of parliament for preventing the ſtealing of dogs, which ſhews the great regard the legiſlature has to the canine race.

By the ſtatute of 10 Geo. III. for preventing the ſtealing of dogs, it is enacted, that after the 1ſt day of *May*, 1770, if any perſon ſhall ſteal any dog or dogs of any kind or ſort whatſoever, from the owner thereof, or from any perſon entruſted by the owner thereof with ſuch dog or dogs; or ſhall ſell, buy, receive, harbour, detain, or keep any dogs of any kind or ſort whatſoever, knowing the ſame to have been ſtolen as aforeſaid, every ſuch perſon being convicted thereof upon the oath of one credible witneſs, before two juſtices of the peace, ſhall for the firſt offence forfeit and pay any ſum, not exceeding 30*l.* nor leſs than 20*l.* and the charges of conviction. And in caſe ſuch penalty ſhall not be forthwith paid, the offender to be committed to gaol for any time not exceeding twelve months, nor leſs than ſix, or until the penalty and charges are paid. Any perſon guilty of a ſubſequent offence, to forfeit and pay any ſum not exceeding 50*l.* nor leſs than 30*l.* together with the charges, which penalties to be paid, one moiety thereof to the informer, and the other to the poor of the pariſh. On non-payment the offender to be impriſoned for any time not exceeding 18 months nor leſs than 12, or until the penalty and charges ſhall be paid, and be publicly whipped.

Juſtices to grant warrants to ſearch for dogs ſtolen. And in caſe any ſuch dog or dogs, or their ſkins, ſhall upon ſuch ſearch be found, to take and reſtore every ſuch dog or ſkin to the owner, and the perſons in whoſe cuſtody any ſuch dog or ſkin ſhall be found, are liable to the like penalties and puniſhments. Perſons aggrieved may appeal to the quarter-ſeſſions, and the determination there to be final.

A ſhort Sketch of the Laws, as they now ſtand, relating to Hares, Partridges, Pheaſants, and other Game.

The penalty for killing in the night a hare, partridge or pheaſant, qualified or unqualified, is 5*l.*

Any unqualified perſon expoſing to ſale a hare, partridge, pheaſant, or other game, is liable to a penalty of 5*l.*

If any hare, pheaſant, partridge, or other game, be found in the ſhop, houſe, or poſſeſſion of any poulterer, ſaleſman, fiſhmonger, cook, or paſtry-cook, or of any perſon not qualified in his own right to kill game or entitled thereunto under ſome perſon ſo qualified, it ſhall be deemed an expoſing thereof to ſale.

For ſelling a hare partridge, pheaſant, or other game —qualified or unqualified, 5*l.*

Any unqualified perſon uſing tunnels or other engines, to kill or deſtroy a hare, partridge, pheaſant, or other game, forfeits 5*l.*

Any unqualified perſon keeping and uſing greyhounds, ſetting dogs, lurchers, tunnels, or other engines to kill or deſtroy hares, partridges, pheaſants, or other game, is liable to 5*l.* penalty—The 5*l.* penalty is either for keeping or uſing.

For killing a partridge, between the 12th of *February* and 14th of *September*—qualified or unqualified, 5*l.*

For uſing greyhounds, lurchers, or ſetting dogs, to kill a hare, partridge, or pheaſant, unqualified, 5*l.*

[Greyhounds, lurchers, and ſetting dogs, are the only dogs for keeping and uſing which the penalty of 5*l.* is levied. But by another ſtatute, a penalty not exceeding 20*s.* may be levied for keeping and uſing the above or any other dogs.]

For killing a pheaſant, between the 1ſt of *February* and 1ſt of *October*—qualified or unqualified, 5*l.*

[The information in the above caſes muſt be laid within ſix calendar months, before a juſtice of the peace, or by action of debt, bill, plaint, or information. The whole penalty to be given to the informer, with double coſts, if brought on in the courts of Weſtminſter.] Half to informer and half to poor.

For tracing in the ſnow, or ſhooting with a gun or long bow, a hare—qualified or unqualified, impriſonment 3 months, or fine 1*l.*

For uſing ſnares to take or kill a hare—qualified or unqualified, impriſonment one month, or fine 10*s.*

[The information in the above caſes muſt be laid before a juſtice of the peace within one year.]

The informer to be entitled to all coſts and charges, and to half the penalty, the other half to be given to the poor of the pariſh.

Any game keeper killing or taking a hare, pheaſant, partridge, or other game, under colour of being for the uſe of the lord of the manor, and afterwards ſelling and diſpoſing thereof without the conſent of the ſaid lord of the manor—upon conviction, on the complaint of ſuch lord, and on the oath of one witneſs, before a juſtice, ſhall be committed to the houſe of correction for three months, and there kept to hard labour.

Any

Any person who shall destroy, sell, or buy any hare, pheasant, &c. and shall in three months make discovery of any higler, chapman, carrier, inn-keeper, ale-house-keeper, or victualler, that hath bought or sold, or offered to buy or sell, or had in their possession, any hare, pheasant, partridge, &c. so as any one shall be convicted; such discoverer shall be discharged of the pains and penalties hereby enacted for killing or selling such game, and shall receive the same benefit as any other informer.

Any justice of the peace, and lord within his manor, may take away any such hare, pheasant, partridge, &c. from any higler, chapman, inn-keeper, victualler, or carrier, or any other person not qualified, which shall be found in his custody or possession.

Any person that shall knowingly and wilfully kill, take or destroy, or use any gun, dog, snare, net, or other engine, with intent to kill, take, or destroy, any hare, partridge, or other game, in the night, viz. between the hours of seven at night and six in the morning, from the 12th of *October* to the 12th of *February*, and between the hours of nine at night and four in the morning, from the 12th of *February* to the 12th of *October*; or in the day time on a *Sunday* or *Christmas-day*; shall forfeit for the first offence not exceeding 20*l.* nor less than 10*l.* For the second offence not exceeding 30*l.* nor less than 20*l.* For the third and every other subsequent offence 50*l.*

[The information to be laid within one calendar month, before a justice of the peace. The informer to be entitled to all costs and charges, and to half the penalty, the other half to be given to the poor of the parish.]

No person shall shoot with any cross-bow, hand-gun, or demihake, unless such person is really possessed of 100*l.* *per annum*, on pain of forfeiting 10*l.*

No person, of what estate or degree soever, shall shoot with, carry, keep, use, or have in his possession, any hand-gun, not being in the stock and gun of the length of one yard; or any hagbut, or demihake, not being in the stock and gun of the length of three quarters of a yard, on pain of forfeiting 10*l.*

Any person having 100*l.* per annum as above, may seize every such cross-bow, hand-gun, &c. being so deficient in length; but shall break and destroy them in 20 days after such seizure, on pain of forfeiting 2*l.*

No person shall command his servant to shoot with any cross-bow, hand gun, hagbut, or demihake, at any deer, fowl, or other thing, except at a butt or bank of earth, on pain of forfeiting 10*l.*

Persons qualified to kill game, must be in possession of lands, tenements, or some other estate of inheritance, either in right of themselves or their wives, of the clear yearly value of 100*l*—or for life, or lease of 99 years of 150*l* per annum, other than the son and heir of an esquire, or person of a higher degree, or lord of a manor, or keepers of parks, chases, or free warrens.

LORD MANSFIELD'S OPINION.

An unqualified person may go out to beat the hedges, bushes, &c. with a qualified person, and to see the game pursued or destroyed, provided the unqualified person has no gun or other engine with him for the destruction of the game, without being subject to a penalty.

As many sportsmen may be unacquainted with the nature of the act passed in the last session of parliament, 1796, relating to partridge-shooting, we think it necessary to state that the time of its commencement is altered from the 1st to the 14th day of *September*; as will be seen by the following extract from the Act: "From and after the passing of this Act, no person or persons shall, on any pretence whatsoever, take, kill, destroy, carry, sell, buy, or have in his, her, or their possession or use, any partridge, between the 14th day of *February* and the 14th day of *September* in any one year:" and if any person or persons shall transgress this act in the case aforesaid, every such person shall be liable to the same penalty as, by the former Act, is laid and imposed for killing, &c. such partridge between the 12th of *February*, and the 1st of *September*.

GAME-COCK. Many gentlemen who follow the diversion of fighting cocks, by not being well acquainted with the methods concerning breeding them, are prevented from enjoying the most desirable part of the fancy; therefore, the result of many years experience upon that subject, will be well received by all lovers of the sport, or any other persons who have the curiosity to read the following observations.

The choice of a cock should be from a strain which has behaved well, that is, from those who have always won the odd battle when equally matched; for it is a general opinion among persons who are well acquainted with the fancy, that cocks capable of so doing are good ones. But this is not always to be depended on for a second battle with the same cock; for cocks, that to all appearances won the first time they fought very easy, yet have been much hurt, and in their second battle, after a few blows, stood still and been beat. Neither is this the only thing against a cock's winning twice; for after having fought the battle he was matched for, it seldom happens but he is neglected; yet an opportunity offering to fight him in the course of eight or ten days, he receives a hurry with another cock in the pens, and because his goodness makes him spar well for some two or three minutes, it is concluded he is fit to fight: and if he has to combat with a cock that has never fought, and yet is well to fight, it is almost certain he will be beat, though perhaps a much better cock in blood.

It sometimes happens during the course of a battle, particularly if one of the cocks is blinded, that the setter-to gets a blow in the hand, which will prevent him using it for three or four days; judge then what a situation one of these poor animals must be in from the number of wounds he must consequently receive during a smart battle of fifteen or twenty minutes; yet if a good cock in blood, he will appear in two or three weeks time as if he had not been hurt: but never trust to appearances of this sort, for be assured, after a cock has fought a hard battle, he will not be fit to fight again the same season; and very often, after you have been at the expence and trouble of keeping him at his walk another year,

year, he will only lose your money, by reason of his having received some hurt in his first battle, which he has never been able to get the better of, and which the best judges could not discover; nor is he fit after to breed from; but there are some gentlemen who have been fortunate enough to have bred good chickens from a cock that has fought several times; also those who have had cocks that have won several battles. It sometimes happens that cocks that have fought several times get good chickens, but then they have an elegance of make, and a remarkable constitution to recommend them; and indeed if they had not been possessed of something very rare to be found in the common run of cocks, a person of judgment would never have bred from them. As to cocks winning several battles, it sometimes happens that a cock will win three or four seasons running in regular matches, or win a welch main, but then he must be a very severe striker; and for another's winning seven or eight battles in a season, it ought to be considered what he has had to fight against, a parcel of half-bred, ill-walked, dunghill things; or else some young fanciers have been prevailed upon to fight chickens against him, or cocks much under his weight; when if he had had a fresh cock come against him only the second time he fought, of equal weight and goodness, and as well to fight, it is very great odds but he must have been beat.

The properties a cock ought to be possessed of that is bred from, are these, first, you should be well acquainted with the stock he sprung from; the next object you must pay an attention to, is to be assured he is perfectly sound, which to find out is rather difficult; but the best method is strictly to observe his manner of feeding, for if he will eat corn enough to make his crop very hard, and digest it quickly, it is a sure sign his constitution is good; as it is that he is rotten, if he eats but little, and has a bad digestion.

There are also other methods to be observed on this occasion, such as running him down in a field, or to spar him with another cock, when if he turns black in the face at either of these exercises, you may be certain he is not sound; but to make sure try these, and every other method you can devise; for it is impossible to be too particular in this article.

As to the exterior qualifications, his head should be thin and long, or if short, very taper, with a large full eye, his beak crooked and stout, his neck thick and long (for a cock with a long neck has a great advantage in his battle, particularly if his antagonist is one of those kind of cocks that will fight at no other place but the head); his body short and compact, with a round breast (as a sharp breasted cock carries a great deal of useless weight about him, and never has a fine fore-hand); his thighs firm and thick, and placed well up to the shoulder (for when a cock's thighs hang dangling behind him, be assured he never can maintain a long battle); his legs long and thick, and if they correspond with the colour of his beak I think it is a perfection; and his feet should be broad and thin, with very long claws.

With regard to his carriage, it should be upright, but not stifly so; his walk should be stately, with his wings in some measure extended, and not plod along as some cocks do, with their wings upon their backs like geese.

As to the colour he is of, it is immaterial, for there are good cocks of all colours; but he should be thin of feathers, and they short and very hard, which is another proof of his being healthy, as on the contrary, if he has many, and those soft and long, it favours much of his having a bad constitution.

A cock possessed of all these qualifications, supposing him in a condition to fight, ought not to weigh more than four pounds eight or ten ounces; for if you breed from a cock that weighs five pounds and upwards, and your hens are of a good size, which they ought to be, the cocks they produce, if well walked, will be too large to fight within the articles, and this will be a great loss to the breeder; neither should they weigh much less than the weight mentioned, for if he is not greatly superior in size to the hens you put him with, the produce will not have that share of bone they should have, and consequently if they fight against well bred cocks they will lose a great deal in match, which every one that follows this fancy knows the result of, or at least should do.

Having mentioned the requisites for the choice of a cock, be certain the hens you tend him to breed with are sound; which to find out, use the same methods mentioned to be made use of with a cock; also be assured there has not been the least taint in their race for many generations past. As to other qualifications with regard to feather, make and shape, they should exactly correspond with the cock's, except their bodies, which should be roomy behind for the production of large eggs.

The next thing to be considered is the place for you to breed at; this should at least be near half a mile from any house where fowls are kept, for fear of having your hens trod by other cocks, which is often the case if they ramble within sight of each other: it should also be a considerable distance from any wood or coppice; that is, it ought to be so far, that there would not be a probability of their straying near it, for the vermin that infest those places will destroy your chickens; and sometimes it affords an opportunity for a fox to run away with your cock, or one of your hens, during the day-time.

If your situation is on a dry gravelly soil, it is the better, and as you must by no means breed at a place where there is not a constant spring of clear water, contrive if you can to let it run off in a small stream by the house, if ever so inconsiderable; by which means your fowls will always have clean water without any trouble; but if you are obliged to draw the water out of your well with a bucket, be attentive to give it them fresh very often.

It is the prevailing opinion among many persons, who are fanciers, that a farm house is a good place to breed game chickens, because of the many out-houses and stables for them to shelter in during bad weather, and thinking as they are threshing the greatest part of the year, there will be always food for them. It is true, dry places, where they may amuse themselves when

when it rains, are very convenient, but buying them corn ſhould be of no moment to a gentleman who wiſhes to ſee his cocks cut a figure in the match.

As it is probable the reader would wiſh to know objections againſt breeding at a farm-houſe; they are becauſe farmers in general keep a number of hogs, geeſe, and ducks, which foul all the water about the place, and unleſs chickens have clean water, they will never make thorough ſound cocks. Neither is it a good walk for a cock, on account of the many hens that are uſually kept at theſe places; for it muſt be underſtood, by his having ſo great a variety he will debilitate himſelf; and to clear up this point, is only determining whether a debilitated perſon is able to go through the ſame exerciſes as one who has never entered into any debaucheries. Alſo concerning the water, it is abſolutely neceſſary that cocks and hens ſhould have clean water, as well as chickens, if you mean to keep them ſound. But to finiſh the deſcription of the ſituation you ſhould chooſe to breed at, let the place where they are to rooſt in be dry, and free from any offenſive ſmells; as to the ſize of it, it is not very material, only do not let it be too ſmall, nor the rooſting perch too thick for them to gripe, nor higher than they can aſcend and deſcend with eaſe; which will prevent them from having ſwelled feet, a defect that ſhould be carefully guarded againſt, it being looked upon ſo detrimental, that feeders have refuſed to accept them, when they have been perfect in every other reſpect; which conſequently muſt be a great loſs to thoſe who only breed cocks to lend.

In the beginning of *February* put your cock and hens together, and not before, taking care that your hens have not been with any cock ſince they laid their laſt clutch of eggs: alſo regulate the number you put down according to the quantity of chickens you want to breed, but never put more than four to one cock, and let them be ſiſters, for by putting different ſorts together, you never can breed with any certainty: likewiſe, it is neceſſary you ſhould pay an attention to how they agree, for if the cock takes a diſlike to any of the hens (as is ſometimes the caſe) take her up, for you had better loſe breeding with her a ſeaſon, than to have chickens when there is the leaſt probability of their turning out badly.

Before your hens begin to lay, provide ſeparate neſts for them, if there is only one, and as they generally want to lay about the ſame time in the day, it will occaſion them to drop their eggs in improper places, and ſometimes to quarrel: likewiſe let them be as far aſunder as the breeding place will admit of.

The firſt egg they lay, as it generally runs a great deal ſmaller than the reſt of the clutch, you need not ſave, but let it be marked and left for a neſt egg; this done, take all the others out of the neſt the ſame day they are laid, and put them in a box with bran, taking care they are not thrown about nor changed; for ſome perſons who breed cocks think it no harm to get poſſeſſion of another's ſtrain (no matter by what means) if they believe they are better than their own; but to be certain if this happens, write your name upon every egg you mean to ſet, directly as you take it out of the neſt, which though your eggs may be ſtolen, will prevent your having others ſubſtituted.

When your hens begin to grow broody; do not ſave any more of their eggs, but leave them in the neſt, as it will entice them to ſit the ſooner; and the reaſon for your acting in this manner, is, that after they ſhew a deſire of wanting to ſit, they are never in perfect health, which may be perceived by their countenance turning white, the ſhrivelling of their combs, and by their ſcreaming when the cock comes near them; nor will they ever permit him to tread them but when he does it by ſurprize; therefore, it is not likely the chickens thoſe eggs produce, could poſſeſs the ſpirit of chickens produced from eggs layed by the hens when they are in full health; and it is really an opinion, this is the reaſon why two ſorts of chickens (ſome very good ones, and others but indifferent) have been hatched at the ſame time from the produce of one cock and hen; and if it has happened that the eggs laid while ſhe was in health have been deſtroyed during the time of ſitting, and thoſe laid by her after ſhe began to grow broody preſerved, the hen or cock, or perhaps both, have had their necks broke for breeding bad chickens, when at the ſame time, it has not been their demerit, but the perſon whoſe care they were entruſted to.

Having made theſe remarks with regard to the eggs the moſt proper to ſit on, it is probable you will want to have two clutches of chickens from each of your hens in a proper ſeaſon; to effect which do not let them ſit upon the firſt clutch of eggs they lay, but provide hens for that purpoſe, whether dunghill or game is not very material, but the former is to be preferred, as by their being leſs apt to quarrel, the chickens will not run ſo much danger of being trod to death; but make yourſelf thoroughly aſſured, they have not got that fatal diſtemper called the roope.

When you ſet them, let their neſts be made in large earthen pans, at leaſt a foot and a half from the ground, with clean ſtraw rubbed ſoft, which will prevent their being annoyed by vermin, for ſome hens have been actually killed by ſwarms of ſmall inſects that have found means to get at them when they have been ſet in old boxes or tubs; which accidents pans will entirely prevent. As to the number of eggs you put under each hen, they ought not to exceed twelve; for a hen ſeldom hatches more than that number of chickens if ſhe ſits upon ſeventeen, by her not being able to give them all the proper degree of heat they require; and very often by having too many you ſpoil them all: neither is ſetting an odd number of any conſequence, ſuch ſuperſtitious notions having been long abolifhed.

Do not ſet your ſtrange hens where the others can get at them, as their wanting to ſit would occaſion the eggs to be broke; and if they did not want to ſit, they would quarrel, which would be attended with the ſame loſs. Let plenty of victuals and water be always near the hens that are ſitting; and if the place where they ſit is floored, provide a quantity of gravel, by which means they will be able to eat, drink, and trim themſelves at their pleaſure.

As you will take the eggs from any one of your breeding

ing hens that want to sit, you must at the same time confine her, or else she will become very troublesome, by getting into one of the other hen's nests and so prevent her from coming to lay: and as this in all probability may occasion them to quarrel, you should take great care to prevent it; for very often when they begin fighting, they never run peaceably together afterwards. Besides, there are other ill consequences attend their quarrelling, for if the two hens that have quarrelled happened to be mistresses over the others, and get the least disfigured, they will be attacked by them, and if they are not parted very soon, it will hinder them from laying any more that season, and sometimes they entirely spoil one another. To prevent these disagreeable circumstances, when any of them want to sit, and it is not agreeable to you she should, keep her under a crate close to the spot where you always feed your fowls, until such time as her heat for sitting is gone off, which will not hurt her, if she has a dry place to stand in when it rains, which you may procure her, by putting something over that end of the crate where she roosts; for were you to separate them in such a manner as they could not see each other, when you put them together again it would occasion a quarrel.

Suppose all your hens have laid their first clutch of eggs, and gone off wanting to sit, when they begin to lay their second clutch, just proceed in the same manner as you did with the first, only with this difference, of letting them sit on their own eggs: for by no means let them lay a third clutch before you permit them to sit, as they will be weakened by such a proceeding very much: neither will the chickens be so good; for it must be understood you made a trespass upon nature in not permitting them to sit the first time they wanted, and not only that, but the season would get too far advanced; it being the prevailing opinion of all good judges that chickens bred to fight should be hatched in the latter end of *March*, or in the months of *April* and *May*. And indeed experience will shew the necessity there is of abiding by this observation; for if chickens are hatched in *February*, or the beginning of *March*, without the season is remarkably mild, it is a great chance but half of them die: besides the trouble you would be at in keeping them in the house; those that do live, thrive so slowly by reason of their being cramped with the cold when young, that the other chickens hatched in *April* or *May*, by never having any illness, will be much finer in every respect before the end of *July*; and as it is not good policy to fight a match of chickens, there is no occasion for them to be hatched so early, being equally as forward to fight as cocks bred in *April* or *May*. Nor can any person, who is not well acquainted with breeding, conceive the amazing difference there will be between a clutch of chickens hatched in *April* or *May*, and one hatched in *July* or *August* although from the same cock and hen; for as those bred in the spring will run cocks (to make use of some phrases made by sportsmen) high upon leg, light fleshed, and large boned; when those bred in the summer will be quite the reverse, and consequently will have to fight (if his antagonist was bred in a proper season) a much larger cock, though no heavier than himself.

As one-and-twenty days is the time allotted for a hen to hatch her chickens in, if your eggs are set as soon as you have a sufficient number laid, they will hatch the twentieth day, and when the weather has been remarkably warm they will begin hatching the nineteenth. These remarks you should be attentive to, and take the chickens from her as they hatch, for if you do not, and they should not hatch nearly together, she will leave off sitting so close as she should do, after two or three are out of their shell, and consequently, if she does, the rest must perish. The chickens that are taken from the hen, while the rest are hatching, must be kept warm, which you may do, by putting them in a nest made of wool, and covered with flannel, taking care at the same time that they are put in a place where the hen cannot hear them, for if she does, she will leave off sitting immediately, and fly to the place where they are.

If you have four hens hatch chickens in the course of three or four days, and each hen upon an average has not more than ten, take the chickens from one, and divide them amongst the other three, which you may do in an evening, after they have been sometime at roost; and the hens they are put to, will nurse them the morning following, in the same manner as those they hatched themselves; but should they not have above eight each, you may let them all be brought up by two hens, which will save you the expence and trouble of keeping four, as two will answer the same purpose; besides, your chickens will not have so many enemies.

If it is dry weather and the sun shines, you may put your chickens out of doors the next day after they are hatched, placing your hens under crates, to prevent their rambling too far; but if the weather is cold and the ground wet, keep them in a room, and confine the hens in the same manner supposing they were out, which will occasion them to hover the chickens much oftener than if they had their liberty; but be sure there is space enough for the chickens to get into the crates, because if they are obliged to squeeze in, it will make them grow long bodied, as will their often going between garden rails, which they will do if there are any near, and they cannot fly over.

Many persons declare, who could have had no experience in breeding fowls, that they did not think it necessary that a hen should be confined while her chickens are young, and had just sense enough to say, that nature never designed it; if a hen should lay a clutch of eggs secretly in *January*, as it is not uncommon for young hens to lay in that month and sit upon them, consequently, if there are any chickens hatched, it must be in *February*, when if she is not taken in doors, but left to range where she pleases, the cold northerly winds and wet weather, which are usual at that season of the year, will destroy all of them.

Breeders differ very much with respect to the food that is given chickens for the first ten or twelve days after they are hatched; they grow best when fed with bread and egg, mixed in the same manner as for young

canary birds; and if it happens to be wet weather, that you are obliged to keep them in a room, give them once a day bones of raw mutton or beef to pick, for as they are deprived, by being confined, of the insects and worms they are always picking up when ranging about in the fields, it is necessary they should have some meat, and when given them in this manner, it is better than when it is cut for them, as it not only helps to digest their own food quick, but affords them exercise and amusement.

It is requisite you should pay great attention to changing their water very often, for as it is given them in very shallow vessels they soon make it dirty, by frequently running through it, whether in a room or out of doors: besides when the hen is out, as she should always be placed where the sun shines, the water gets warm by there only being such a small quantity, which is very disagreeable to them, so much so, that they have refused drinking it; when the instant you have given them fresh water, they have drank till they have been sick, which ought to be prevented.

When your chickens are a fortnight old, begin feeding them on barley, and let your hens have their liberty; but if you should not have the convenience of a running water, take care to place the vessels from which they are to drink on the shady side of the house, and the oftener you change their water the better, likewise feed your chickens on a place where there is gravel, which may be effected by having three or four cart loads of that soil thrown up in the same manner as a bank which separates two fields, and at feeding time scatter their barley on both sides of it, which in some measure will prevent your hens from beating each other's chickens, likewise the early clutches from worrying the latter ones. It will also be of great service towards keeping them sound, for as they cannot help eating, in wet weather, a quantity of whatever soil their corn is scattered upon, you may be assured gravel is the wholesomest. Be sure also that they do not drink any soap suds, or get to any filthy places; for if they do it engenders distempers in them which very often turn to that fatal one the roope, a disease for which there are many remedies, but never any so effectual as breaking their necks; and which method every person should take, as soon as they are certain any one has the disorder. Some persons think fowls have the roope, when they have only a matter resembling water, running from their nostrils (which is occasioned by a cold); and though this for certain is the first stage of that distemper, yet if you but change their walk, and take care of them, they will recover without being so much hurt as to prevent their being bred from. Fowls often have not had their constitution hurt, although their heads have been swelled by a cold, that cores have been cut out from under their eyes; for this has been a sudden attack, and as sudden a recovery; but rest yourself assured, if they do not lose their running upon changing their walk, and it becomes thick and stinks, they have got the roope.

The proper times to feed your chickens, are in the morning when you let them out; at noon, and about an hour before you let them go to roost; and do not give them more at once than they can eat, that is, do not let there be victuals always upon the gravel, for if you do, they will not take that exercise which is necessary they should, no more than they will if they are kept too long without feeding; and to explain the necessity there is for acting in this manner, is only to figure to yourself when you have been obliged to wait an hour or two longer for your dinner than usual, how incapable you have found yourself during that time to undertake any thing ever so trifling; as on the other hand, when you have been at a table where a great number of delicacies have induced you to eat more than nature required, you must have found yourself equally incapable of doing any one thing except to sleep.

If your breeding hens have all got chickens, as it is probable they may by sitting on their second clutches of eggs, take up your cock, and put him to another walk; for by the hens being engaged, and not accompanying him, he will get vicious and morose, and perhaps beat the chickens, who by being young and unable to bear his blows will pine away and die; besides, by his being sent away, the hens will take care of them much longer. As soon as you can well distinguish the different species between the chickens, break the necks of all the pullets, except you mean to save any to breed from; for as you must break their necks when they are three or four months old, the trouble you will be at in keeping them so long, and to feed them as you do the rest, will be more than they are worth for the table; besides, as you bred them to have so much bone, the expence you have been at for barley will buy chickens that will eat much better. But supposing your situation in life is such that the expence is not an object worth your notice, it would be diminishing their number which is very requisite, as it occasions them to thrive the faster. In short, it would in all probability prevent your giving any away; for was you to be visited by any of your friends, their seeing so many pullets, might induce them to solicit one, and if they are persons you would wish to oblige, you cannot deny their request; the consequence of which will be, if ever any of these gentlemen should take part in a match against you, your cocks will have to fight against their own relations; which gentlemen who follow this diversion should live with their friends as if they would one time or another become their enemies; and although this maxim may seem rather severe, yet was it adopted on many other occasions, it would be found a very necessary one.

When your chickens want to go to roost, let the perches you provide for them be round and covered with woollen cloth, which will prevent their growing crooked breasted, neither should it be thicker than they can gripe with ease, as that would occasion them to grow duck footed. This last article, when it happens, is a great detriment to them, by reason of their not being able to stand so firm in their battle as they otherwise would do, were their claws in a proper direction. The perches likewise should be placed no higher than they can ascend with ease, moving them as they grow more able to fly, but never place them too high (that is, not higher than four or five feet till they are three months old; for fear it should occasion them to have swelled feet; and if the perches are not taken down the hens used

uſed to rooſt on, they will rooſt there again before the chickens are able to follow them, which will render the chickens uneaſy, and as they will attempt it every time they go to rooſt, till they can accompliſh their views, their wings or claws may be broke, which would entirely ſpoil them.

It is probable, you will be diſagreeably perplexed on account of their fighting for maſtery, particularly as you have ſo many, for very often they fight until they tear the ſkin from one another's heads half way down their necks, and when this happens, ſportſmen call them peeled pated, by reaſon that the feathers never grow afterwards where the ſkin has been broke; and this is ſo great a defect, that the oppoſite party may refuſe to let them be weighed, alleging they have a great advantage over a cock with a fair hackle; and if they ſhould act in this manner, after you have been at the trouble and expence of bringing them up to be cocks (without you chooſe to ſell them) you will be obliged to break their necks. There are alſo other ill conſequences, if they are permitted to fight a long time, ſuch as their getting ſeem eyed, cankered mouths; and to be explicit, ſometimes they make one another in ſuch a condition as obliges you to kill them directly.

Now, to prevent their fighting from being attended with ſuch diſagreeable conſequences, after they have begun, divide them into as many parties as you can find ſeparate apartments, leaving the ſtrongeſt upon the ground, and when theſe have fully eſtabliſhed their authority over each other (which you make them do in the courſe of two days, by holding which you find the weakeſt in your hand, and buffeting him with your handkerchief while the other ſtrikes him, and if this wont do, confine him without victuals for a few hours until he is cold, when by his being ſtiff and ſore, and the other freſh, after a blow or two he will not attack him again) you may put down the ſtrongeſt from one of the parties that are ſhut up, who by being kept ſhort of food, will ſubmit directly to run under all thoſe that are down; and when they are ſo far reconciled as to permit him to run amongſt them, put down the ſtrongeſt from another party, which will ſubmit in the ſame manner, and by purſuing this method, in the courſe of a few days you will be able to get them all down. When once ſettled, they will go very peaceably together, except by accident one of them ſhould get diſfigured, which if ſuch a thing ſhould happen, and they do not ſeem to be perfectly reconciled, ſend him to another walk for fear of a general quarrel.

Do not permit the hens to run longer with the chickens, than while they remain miſtreſſes over them, but ſend them, and the pullets you have ſaved to another walk; as it will be a ſeaſon of the year your brood cock can be of no ſervice, by putting him down with the chickens, he will be as good to them as a bell-weather to a flock of ſheep; beſides, you will ſave a walk, and in this manner they will run peaceably together (if you prevent any hens from coming near them) until you want the walk for breeding at again. Be ſure you get good walks for thoſe to be made cocks of, but by no means put them down at farm houſes, nor at any place where there is the leaſt probability of their getting to other cocks, for if you do, you may be aſſured of having them ſpoiled. In ſhort, if they are not put to good walks, where they will have plenty of good corn and clean water, you had better break their necks. When you take them to their walks, cut off their combs, *&c.* as cloſe as you can; and by following theſe methods, your brood walk will be clear for you to begin breeding, in a proper time the next ſeaſon.

Having mentioned about moving your hens to another walk, I muſt caution you not to put them down where there are any other hens, not even dunghill ones, for though theſe will not fight long enough to do your hens any injury, they will diſfigure them, which is as bad, becauſe it will ſet them a fighting among themſelves; and if you mean to breed from them the next ſeaſon; it would certainly be better to let them run without a cock; for if they do not lay after they have began to moult, till the clutch of eggs you would wiſh to ſet, you will not be certain to the father of your chickens.

It is requiſite you ſhould know the goodneſs of thoſe already bred before you breed another whole ſeaſon from the ſame cock and hens, but do not cut them out as ſome perſons do, who think if they die game they muſt be good ones; for inſtance, ſome gentlemen's cocks, although very good game, have been beat very eaſy only by half bred cocks, that have been good ſtrikers; whereas if they had made as good uſe of their heels as their antagoniſts, they would eaſily have made them run away. But to be ingenuous, the method you follow to find out their goodneſs, is to chooſe three or four that are ſhorteſt upon leg (becauſe they are fitteſt to fight when ſtags) from thoſe that were hatched in the early part of the ſeaſon, and if you are concerned in a match about *February* or *March*, have them weighed in; but ſuppoſing you ſhould not have any thing to do with a match, lend them where you are ſure they will be well looked after, and by ſtaking the battle money they fight for, you may have them weighed to fight in the main, and as you would not have lent them without its being a creditable match, they conſequently will have to fight againſt good cocks. If you lend four, it is probable three may fight; but there is great odds that one does; and about an equal chance that two do; but let us ſuppoſe three fight, you would be to blame to back them, and indeed it would be judgment for you to lay againſt them to the amount of the battle money, for although your ſtags may be much better than the cocks they fight againſt, yet if it ſhould be a long battle, the cocks muſt win without a mere chance, which good ſportſmen never will truſt to. It is alſo requiſite you ſhould inform yourſelf, if you can, whoſe cocks your ſtags fight againſt, and what character they bear, by ſo doing, you will be a better judge what your ſtags are able to do; likewiſe pay a ſtrict attention to their manner of fighting, for if they keep the battle upon an equal poiſe againſt good cocks, and only ſeem to be beat by age, do not be out of humour, and break the necks of thoſe at their walks, as you may expect great things from them when cocks. Suppoſing they ſhould behave in this manner, breed from the ſame cock and hens again the next ſeaſon, and ſhould they win the odd battle

when cocks, be very careful of your brood cock; for if you are, and by keeping him from the hens during the latter part of the ſeaſon, you may breed from him ſeven or eight years, as a cock that will get good chickens, being a very valuable acquiſition to a breeder.

It is not meant when it is ſaid you may breed from your cock ſo many ſeaſons, that it ſhould always be from the ſame hens, neither is there any occaſion to croſs them every ſeaſon, for if they are good, be contented (and do not let every cock you ſee fight a good battle, entice you to breed from him) for by putting your young hens to your old cock, and a young cock to your old hens, you may keep them in their full vigour at leaſt four years. But never breed from ſtags or pullets without your old ones, as no fowls can ever be poſſeſſed of every neceſſary requiſite to breed from, until they have moulted twice, and when you do croſs your breed, be very careful what ſort you do it with, and the nearer the colour of your own the better, as the produce will run more regular in feather.

Now, permit me to recommend you to tranſact the buſineſs relative to trying your ſtags, without mentioning it even to the perſon that feeds them, which you may effect by cutting off the points of your ſtags heels when you take them from their walks, and ſending them as cocks: but if he ſhould have ſome ſuſpicion they are ſtags (as it is probable he will, if he underſtands his buſineſs) and aſks you, do not inform him, neither tell him they are your own breeding, or that they are all of one ſort; by which means, whether they are good or bad, no perſon will be acquainted with it; for if they ſhould turn out to be of the firſt rate, and you have told the feeder they are your own, and that you have a great many brothers, he tells his helpers, and they their companions, by which means, when your cocks come to fight the next year, you will not be able to get a bet, without laying ſix to four, and ſuppoſing you lay an equal ſum upon every battle, if your cocks do win three out of five in one day's fighting, you will be juſt even in your bets; but if they ſhould loſe three out of five the next day, and you kept laying guineas, you would be ten loſer.

This is ſufficient to ſhow, how neceſſary it is to act with ſecrecy. And to prevent any one from knowing that your cocks are of a ſort, when you mark your chickens, do it two or three different ways, but do not truſt to your memory on this occaſion, let it be ever ſo good, for by having two or three ſorts, each marked in a different manner, may create confuſion, if not inſerted in a book.

It will be requiſite to make ſome neceſſary remarks, to be attended to by any gentleman that is going to fight a match. In fine, when any gentleman has an intention of fighting a match, no matter whether for one day or for a week, before he comes to an agreement, he ſhould viſit all his walks, to ſee if the cocks are ſafe and in a condition fit to be taken up; if they are, the next thing to be conſidered is to ſecure a feeder, one whoſe cocks he has known to fight well during the courſe of many matches, and not by his only having the name of a good feeder, for many are called by that name who have little pretenſions to it; and if they have had the good fortune to win a match or two, it has not been owing ſo much to their good feeding, as to the excellent ſtrings of cocks that have been ſent in by the gentlemen who employed them. Likewiſe to ſecure a good ſetter-to, one whom you have ſeen often and know to be clever, for it is the ſame with this art as that concerning feeding; many pretend to be adepts in it, who do not know when a cock wants reſt, or when he ſhould be made to fight. It muſt be underſtood the winning of a match chiefly depends upon thoſe two perſons, for a good feeder, and a good ſetter-to, win a match with an indifferent ſtring of cocks, againſt a bad feeder and ſetter-to with an excellent one: and as there are generally two who have more merit than any that pretended to this art, the perſon who ſecures them in his intereſt will conſequently have a great advantage over his adverſary.

In the choice of a fighting cock, four things are chiefly to be conſidered, *viz.*

Shape, colour, courage, and a ſharp heel.

1. As to ſhape, you muſt not chuſe one either too large or too ſmall; for the firſt is unwieldy, and not active, the other is weak and tedious in his fighting; and both very difficult to be matched: the middle-ſized cock is therefore moſt proper for your purpoſe, as being ſtrong, nimble, and eaſily matched: his head ought to be ſmall, with a quick large eye, and a ſtrong beak, which (as Mr. MARKHAM obſerves) ſhould be crookt, and big at the ſetting on, in colour ſuitable to the plume of his feathers, whether black, yellow, or reddiſh, &c.

The beam of his leg is to be very ſtrong, and according to his plume, blue, grey, or yellow; his ſpurs rough, long, and ſharp, a little bending, and pointing inward.

2. The colour of a game cock ought to be grey, yellow, or red, with a black breaſt; not but there are many other piles, or birds of different colours very excellent, and may be diſcovered by practice and obſervation, but the three former, by experience, are ever found the beſt. The pied pile may paſs indifferently, but the white and dun are rarely known to be good for any thing.

If your cock's neck be inveſted with a ſcarlet complexion, it is a ſign he is ſtrong, luſty and courageous; but on the contrary, if pale and wan, it denotes him to be faint, and defective in his ſtate of health.

3. You may know his courage by his proud, upright ſtanding, and ſtately tread in walking; and if he crows frequently in the pen it is a demonſtration of ſpirit.

4. His narrow heel, or ſharpneſs of heel, is known no otherwiſe than by obſervation in fighting; and that is, when upon every riſing he ſo hits, that he draws blood from his adverſary, gilding his ſpurs continually, and at every blow threatening him with immediate death.

Here note, it is the opinion of the moſt ſkilful cock-maſters, that a ſharp-heeled cock, though he be ſomewhat falſe, is better than a true cock with a dull heel: the reaſon is this, the one fights long, but ſeldom wounds, while

while the other carries a heel so fatal, that every moment produces an expectation of the end of the battle; and though he be not so hardy as to endure the utmost hewing, so commonly there is little occasion for it, he being a quick dispatcher of his business.

Now should your cock prove both hardy and narrow heeled, he is then the best bird you can make choice of.

To prepare a cock to fight, first with a pair of fine shears cut all his mane close off to his neck, from the head to the setting on of the shoulders.

2. Clip off all the feathers from the tail, close to his rump; the redder it appears, the better is the cock in condition.

3. Spread his wings by the length of the first rising feather, and clip the rest slopewise, with sharp points, that in his rising he may therewith endanger an eye of his adversary.

4. Scrape smooth, and sharpen his spurs with a penknife.

5. And lastly, see that there be no feathers on the crown of his head for his opponent to take hold of them, moisten his head all over with your spittle, and turn him into the pit to try his fortune. *For other particulars, see* MATCHING OF COCKS.

GAME-HEN should be rightly plumed; as, black, brown, speckled grey, grizzel, or yellowish; these being the most proper colours for such a hen of the game: if she be tufted on the crown, it is so much the better, for that denotes courage and resolution, and if she have the addition of weapons, they conduce very much to her excellency; her body should be big and well poked behind, for the production of large eggs: but it is adviseable to observe how she behaves herself to her chickens, whether friendly or frowardly: and take especial notice of her carriage amongst other hens; if she receive abuses from them without revenge, or shew any token of cowardice, value her not, for you may depend upon it her chickens will be good for nothing.

GAME-KEEPERS, are those who have the care of keeping and preserving the game, and are appointed to that office by lords of manors, &c. who not being under the degree of esquire, may by a writing, under their hands and seals, authorise one or more game-keepers, who may seize guns, dogs, or nets used by unqualified persons, for destroying the game. Game keepers are also to be persons either qualified by law to kill the game, or to be truely and properly the servants of the lords or ladies of manors appointing them; and no game-keepers can qualify any person to such an end, or to keep dogs, *&c.* as may be seen by the several game acts. *See* GAME LAWS.

The persons qualified to keep guns, dogs, *&c.* are those who have a free warren, 100*l.* a year, by inheritance or for life, or a lease for 99 years of 150*l. per ann.* also the eldest sons of esquires, *&c.* A lord of a manor may appoint a game keeper within his manor and royalty to kill hares, pheasants, partridges, &c. for his own use, the name of whom is to be entered with the clerk of the peace of the county, and if any other game-keeper, or one illegally authorised, under colour of his authority kills game, and afterwards sells it, without the consent of the person that empowers him, he is on conviction to suffer corporal punishment.

GANACHES (so called in *French*) in farriery, are the two bones on each side of the hinder part of the head, opposite to the neck, or onset of the head, which form the lower jaw and give it motion.

It is in this place that the glands or kernels of the strangles and the glanders are placed.

GARGET, IN THE HEAD OF CATTLE; is a swelling and inflammation of the head, affecting in particular the eyes and lips, and in the end inflaming also the gums and tongue.

The creature must be blooded every day till the inflammation is subsided. Immediately after the first bleeding give two ounces and a half of Epsom salts, dissolved in a pint of warm ale; after which, night and morning, let him have the following drench:

Take half a pint of warm ale, a quarter of a pint of juice of plantane, two scruples of salt prunella, and a quarter of an ounce of Venice-treacle. Mix all these together, and give it in one dose. These methods will seldom fail of producing a speedy cure; but the beast must be kept clean, dry, and quiet. Or,

First let them blood in the neck-vein, both sick and sound, and give unto every beast to drink a pint of old urine with a good quantity of hen's dung laid in steep eight or ten hours; grind for each beast a handful of rue, and put to the hen's dung and urine when it is strained, and give it to the beasts, sick and well, but more to the sick than to the sound, as it will cure the sick, and preserve the sound.

And to keep them sound, if the season be dangerous, you must take thyme, and lay it to steep in white-wine vinegar and the beast's own water, with a handful of salt blended with the vinegar; then rub their mouth and tongue very well, and put the rest down the beast's throat; it will keep their stomach, and preserve their health; but bleed both at spring and fall, giving them rue, as aforesaid. Or,

Look into their mouths for blisters upon their tongues; and if there are any you must break them; but if the tongue is swelled, you must pull it forth, and look under it; if there be no blisters, then you must take your knife and slit underneath the tongue an inch long, to let out the poison, and wash it with vinegar for the present, and within an hour, give three penny worth of powder of fenu-greek, turmeric, long pepper, liquorice-powder, and aniseeds, in a quart of strong ale or beer lukewarm. But to prevent this, bleed them well spring and fall; and, when you do so, give to every beast some rue in a pint of ale or beer, though they be never so well, milk-warm, and they will do well.

Cast him on some straw, and then take forth his tongue, and with the point of a knife slit along the middle vein under, an inch right from the root of the tongue, and there will come forth black blood and water, which proceeds from the gall; then rub the place with salt and vinegar, and he will recover and do well.

The

The garget in ſome cattle proceeds from a bruiſe or puſh.

Cut a hole where the bruiſe is, and make it hollow to the bottom thereof; ſome cut and raſe the ſkin as far as the bruiſe goeth, and then make, and have ready, of beaten garlic and the tops of ſharp nettles, with ſome ruſty bacon on the outſide, beat all well together, and then put it into the hole. Then bathe it twice a day as ſollowetb; take the grounds of ale or beer, and the ſoot of a chimney, of white ſifted aſhes, of black ſoap if you can, mix all theſe together, ſtir it well over the fire, and make it warm; then bathe and waſh the ſore place; uſe this morning and evening till it be thoroughly whole.

GARGET, in the *maw* of *cattle*, is a dangerous diſtemper, which is got when the beaſts covet to eat of crabs or acorns laying under trees, which fruit for the moſt part they ſwallow whole without breaking or chewing, ſo that it lieth whole in the maw, and will not digeſt. You may perceive it by their drooping and heavineſs in their head, and hanging down of their ears; their heart will beat very ſore, and they will be continually ſitting.

Let them blood in the neck-vein, and let them bleed very well; then draw your cord, and take rue, plantane, ſouthernwood, wormwood, ſhepherd's purſe, ſmallage, colewort, if you can conveniently get them, of each half a handful; bruiſe them very ſmall; take a handful of hen's dung, and let it ſteep in a pint of old waſh eight hours, and then ſtrain forth the hen's dung, and put the herbs and waſh together; then put a full quart of ſtrong ale to the herbs and waſh, and ſet them on the fire until one half is boiled away: then ſtrain them over again, and put in an ounce of treacle, one ſpoonful of the juice of garlic, and ſome anniſeeds, together with ſome liquorice powder: blend all together, and give to the beaſt milk warm; or, chop and bruiſe ſmall a good handful of chamomile, and then mix it with wine, and give it him.

GARGLE, in CATTLE. This diſeaſe is an inflammation about the neck, beginning in the outward part, and by degrees affecting inwardly. The firſt ſign of it is a hard hot ſwelling in the dewlap; and this ſpreads afterwards to the breaſt and throat.

Bleed the creature largely: then make an opening in the dewlap where the ſwelling is, and put in as much of the leaves of bear's-foot, pounded to a maſh, as the opening will admit. Sew this in with two or three ſtitches; which will cauſe a running, and put a ſtop to the diſeaſe. When it has run three days, the threads muſt be cut, and the bear's-foot taken out. Then melt ſome black baſilicon and dip in it a pledget of tow; put this into the wound juſt warm, and repeat the dreſſing every day till it is healed. If the diſeaſe be obſtinate, and the ſwelling increaſe, bleed again a day or two after.

GARTH, OR FISH-GARTH. A wear or dam in a river for the catching fiſh.

GARTH-MAN. One who owns an open wear where fiſh are taken.

GASCOIN. The inner thigh of an horſe, which begins at the ſtifle, and reaches to the pla, or bending of the ham.

GAUNT BELLYED, OR LIGHT BELLYED HORSE, is one whoſe belly ſhrinks up towards his flank; whence you may conclude he is extremely coſtive, and annoyed with much unnatural heat, ſo as to be always very waſhy, tender, and unhealthy, after hard labour.

In order to the cure of it, it muſt be obſerved, that all horſes have two ſmall ſtrings, reaching from the cods to the bottom of the belly, one on each ſide; you muſt therefore with your finger breek theſe ſtrings, and then anoint the part every day with freſh butter and the ointment *populneum*, mixed in equal quantities.

GAZE-HOUND. } A dog more beholden to the
GAST-HOUND } ſharpneſs of his ſight, than the noſe or ſmelling, by virtue of which he makes excellent ſport with the fox and hare: he is alſo very exquiſite in his election of one that is not lank or lean, but full, fat, and round; which if it happen to return and mingle with the reſt of the herd, this dog will ſoon ſpy it out, leaving the reſt untouched; and after he hath ſet ſure ſight upon it, he ſeparateth it from the company, and having ſo done, never ceaſeth till he hath worried it to death.

Theſe dogs are much uſed in the north of *England*, and on champagne ground rather than buſhy and wooded places; and they are more uſed by horſemen than footmen.

If it ſo happens at any time that ſuch a dog takes a wrong way, upon the maſter's making ſome uſual ſign and familiar token, he returns forthwith, and takes the right and ready courſe, beginning the chaſe afreſh; ſo that with a clear voice and ſwift foot, he follows the game with as much courage and nimbleneſs as he did at firſt.

GEESE. *See* POULTRY.

GELDING, is a horſe whoſe teſticles are cut out, ſo that he is not fit for a ſtallion.

GELDING A HORSE OR COLT. In the performing of this, three things are to be obſerved: firſt the age, then the ſeaſon of the year, and laſtly the ſtate of the moon.

As to the firſt, if it be a colt, he may be gelded at nine days old, or fifteen, if his ſtones be come down; for the ſooner you geld him, the better for the growth, age, and courage: but a farrier may geld a horſe at any age whatever, if he be careful of the cure.

As to the time of the year, it ſhould be done between *April* and *May*, or in the beginning of *June* at fartheſt; or at the fall of the leaf, which is about the latter end of *September*.

But for the third thing, *viz.* the ſtate of the moon, the fitteſt time is always when the moon is in the wane or decreaſe.

As to the manner of gelding, whether it be a foal, colt, or horſe, after you have caſt him upon ſome ſoft place, take the ſtones between your foremoſt finger and your great finger, then ſlit the cod and preſs the ſtones forth; when that is done, with a pair of ſmall nippers made of ſteel, box, or brazil wood, being very ſmooth, clap the ſtrings of the ſtones between them very

very near, cut to the setting on of the stones, and press them so hard, that there may be no flux of blood, then with a thin drawing cauterizing iron, made red hot, sear away the stone; after that take an hard plaister, made of rosin, wax, and washed turpentine, well dissolved together, and with your hot iron, melt it upon the head of the strings; that being done, sear them, and melt more of the salve, till such time as you have had a good thickness of the salve upon the strings.

Lastly, loose the nippers, and do so to the other stone; fill the two slits of the cod with white salt, anoint all the outside of the cod with hog's grease, and then let the horse rise; keeping him in a warm stable loose, that he may walk up and down, for there is nothing better for him than moderate exercise.

But if you perceive that he swells in the cod and sheath very much, chase him up and down, and make him trot an hour in the day, which will soon recover him and make him sound.

GENNET. A kind of *Spanish* horse; also a kind of cat bred in *Spain*, somewhat bigger than a weasel, of a grey or black colour, but the fur of the black is the most valuable.

GENTIL. } A sort of maggot or worm, often
GENTLE. } used for a bait to catch fish.

You may breed and keep gentles thus: take a piece of beast's liver, and with a cross stick, hang it in some corner over a pot or barrel, half full of dry clay, and as the gentles grow big they will fall into the barrel and scour themselves, and be always ready for use whensoever you incline to fish; and these gentles may be thus created till after *Michaelmas*. But if you desire to keep gentles to fish with all the year, then get a dead cat or a kite, and let it be fly-blown, and when the gentles begin to be alive and to stir, then bury it and them in soft moist earth, but as free from frost as you can, and these you may dig up at any time when you intend to use them; these will last till *March*, and about that time turn to be flies.

But if you be too nice to foul your fingers, which good anglers seldom are, then take this bait; get a handful of well made malt, and put it into a dish of water, and then wash and rub it betwixt your hands till you make it clean, and as free from husks as you can; then put that water from it, and put a small quantity of fresh water to it, and set it in something that is fit for that purpose over the fire, where it is not to boil apace, but leisurely and very softly, until it becomes somewhat soft, which you may try by feeling it betwixt your finger and thumb; and when it is soft, put your water from it, and then take a sharp knife, and turning the sprout end of the corn upward, with the point of your knife take the back part of the husk off from it, and yet leaving a kind of inward husk on the corn, or else it is marred: and then cut off that sprouted end, that the white may appear, and pull off the husk on the cloven side, and then cutting off a very little of the other end, that so your hook may enter; and if your hook be small and good, you will find this to be a very choice bait either for winter or summer, you sometimes casting a little of it into the place where your float swims.

GERFALCON. } A bird of prey, that is of a size
GYRFALCON. } between a vulture and a hawk, and of the greatest strength next to an eagle.

GESSES. The furniture belonging to a hawk. *See* JESSIES.

GIDDINESS, or MADNESS, in ASSES. This arises from heat, caused by bad vapours arising from ill digestion.

Take a handful of the tops of rue and carduus, boil it in a pint of white wine, give it warm, and bleed in the temple-veins, keep him in a warm house with a good litter; let his drink be water wherein bran has been boiled.

GIDDINESS, in the head of SHEEP. This is a complaint common among sheep that are too richly fed. The farmers call it sturdiness, and the sturdy evil.

The cure.

The sheep must be bled three quarters of a pint, then dissolve an ounce of assafœtida in a quart of water, add four spoonfuls of juice of garlic, and two ounces of honey; give a quarter of a pint at a time once in three hours, till half is taken; then the rest at doses night and morning. Put the sheep into hilly pasture ground, and they will escape a return.

GIGS, otherwise called BLADDERS, or FLAPS, are a disease in the mouth of a horse; they being small swellings or pustules, with black heads, on the insides of his lips, under his great jaw teeth, which will be sometimes as big as a walnut, and so painful withal, that he will let his meat fall out of his mouth, or at least keep it in his mouth unchewed.

These gigs proceed from foul feeding, either of grass or provender; and you may feel them with your finger.

In order for a cure, pull forth the horse's tongue, and slit it with an incision knife, and thrust out the kernels, or corruption; and afterwards wash the place with vinegar, salt, or allum water, and they will do well: but to prevent their coming at all, wash the parts with wine, beer, or ale.

GIRLE, [among Hunters] a roe-buck of two years old.

GIRTHS OF A SADDLE. The strong canvas straps, which being buckled under a horse's belly, serve to fix the saddle. *See* SADDLE.

GIRTH, [with cock-masters] the compass of a cock's body.

GIRTH-WEB. That stuff of which the girths of a saddle are made.

GLANDERS. Mr. LAWRENCE speaking of the Glanders, says, that BLUNDEVIL, and after him MARKHAM, give the following short description of its rise, progress, and completion: "Of cold, first "cometh the pose (that is stoppage in the head) and "the cough; then the glanders, and last of all, the "mourning of the chine." Of the nature of the disease they had yet very confused and erroneous notions; of course their attempts at cure were irrational, and little to the purpose. But they by no means de-

ſerve the ridicule which has been caſt upon them, for the term *mort-de-chine*, or as Blundevil engliſhed it, mourning of the chine; ſince they did but what is very common with our modern farriers, denominate a diſeaſe from one of its prominent ſymptoms. That the waſting of the chine is an almoſt invariable ſymptom of chronic glanders, I have had frequent occaſion to obſerve: and in the laſt of two attempts to cure the diſeaſe, my patient, a ſix year old mare, had a real *tabes dorſales*, as far as that term is ſuppoſed to intend a conſumption, and weakneſs of the loins.

Snape was the firſt of the old veterinary writers who really underſtood this diſeaſe, and probably it will not be too much to aſſert, that he has given as juſt and philoſophic, although conciſe, an account of it, as the moſt celebrated of our modern writers: of which any profeſſional man may ſatisfy himſelf, by turning to Gibson's Firſt Treatiſe, in one volume, where Snape is quoted, ſince the work of the latter being ſcarce, may not be eaſily obtained.

Bracken was undoubtedly in an error to aſſert, that the glanders was not infectious; the Doctor had ſurely not inveſtigated the nature of the contagion, with his accuſtomed patience and acumen; but his obſervations on the diſeaſe, in his own Treatiſe, and his notes on La Foſſe, whoſe memoir on the glanders he tranſlated, will be found of great conſequence to thoſe who deſire information on the ſubject.

The *Sieur* La Foſſe, farrier to the French king, about the year 1749 made various experiments upon glandered horſes, but his chief merit was the invention of the method of trepanning them, in order to throw injections immediately upon the ulcerated parts: a diſcovery of importance, particularly ſince it proved in every inſtance to be unattended with the leaſt harm, or even blemiſh to the horſe. Edward Snape, formerly farrier to the late king, followed La Foſſe in this practice.

The laſt practical writer on this ſubject, is St. Bel, in whoſe work many curious obſervations will be found: theſe remarks are intended for the uſe of ſuch profeſſional gentlemen as may be deſirous of conſulting the beſt authorities, with as little trouble as may be. With reſpect to poſſeſſors of glandered horſes, who may wiſh to make experiment of the poſſibility of cure; they ought to be aſſured, that it is a caſe which demands the ſkill of the moſt able veterinary phyſicians and ſurgeons, and that no ſatisfaction can poſſibly be derived from the random attempts of ignorant pretenders.

The following anatomical facts, or opinions, are extracted from Bracken, on La Foſſe, and from St. Bel.

La Foſſe.—"There is no communication between the brain and the noſe in the horſe." This was by way of anſwer to thoſe who held the glanders to be a defluxion from the brain. But his commentator controverts this poſition of La Foſſe, who is ſuppoſed to mean no more by it, than that the brain is parted from the upper part of the noſe by bones, and that therefore there is no danger in performing the operation of the trepan; there is a communication through the holes of the bone, called *ethmoides*, or *cribiforme*, from its reſemblance to a ſieve. "In proportion as the ſublingual glands, which are two in number, ſituate one on each ſide between the lower jaw, are ſwelled more (that is obſtructed) the noſe would run more; if one only were ſwelled, then the noſtril on the ſame ſide only would run." The ſeat of the glanders is in the *membrana pituitaria*, or lining of the noſtrils; beſt method of cure by injection." Nineteen out of twenty glandered horſes which were killed, had their viſcera ſound, or very little diſtempered." "When the diſcharge is inclinable to a browniſh hue, with blood, &c. the covering of the capillary veſſels (in the lining of the noſtrils) is abraded and worn off by the ſharpneſs of the humour, and blood makes its eſcape at the extremities of the ramifications or branchings of the veins and arteries." "The ſublingual glands, or glands under the tongue, in horſes, do not diſcharge from their canals into the mouth, as in man, but on the contrary, turn backwards, and paſs behind the holes of the noſtrils; theſe glands are anterior to the maxillary glands, which latter ſupply the mouth with all the ſaliva; for this reaſon, in the glanders, we find obſtruction and tumefaction of the former, whilſt the latter glands remain ſound." "From the appearance of health, the durableneſs of ſome glandered horſes, the good and laudable ſtate of the viſcera, the ſwelling and ulcers of the pituitary membrane, and the cornets, (or thin cartilaginous ſubſtances in ſhape of horns, in each noſtril) and the matter which fills the ſinuſes; we may reaſonably conclude, the glanders is a local and inflammatory diſeaſe, and that the ſeat of it is in the pituitary membrane." "A horſe for eighteen months diſcharged a thick white humour in abundance from his noſtrils. At reſt in the ſtable the running ceaſed, and was exchanged for a rattling noiſe in his breathing, which noiſe ceaſed in turn, on the horſe being worked, when the running again ſucceeded: whence inferred the horſe not glandered. Being killed, the pituitary membrane was found perfectly ſound, and all the interior parts of the noſe in a good ſtate, without any unnatural contents in the ſinuſes. The lower viſcera ſound, but a large abſceſs at the entry of the lungs, in the place where the *trachea arteria*, or windpipe, divides itſelf into branches." Horſes cannot cough up corruption from the lungs by the mouth, as mankind do; therefore ſuch matter runs off by the noſtrils. If one noſtril only run, we may be pretty ſure the diſeaſe is not in the lungs, but the head; becauſe the matter that comes up the windpipe from the lungs has an equal chance of entering both noſtrils." "A horſe may live, and do buſineſs a long time, with an abſceſs in the lungs, before the matter, which paſſes up the windpipe, is capable of corrupting the membranes. The rattling noiſe in the noſtrils, occaſioned by the tumid ſtate of the glands, and the prodigious quantity of matter which flows off, diſtinguiſh the preſent diſtemper from the glanders."

St. Bel.—The glanders, an obſtruction or eroſion of the lymphatic ducts and fluids, in animals which do not cleave the hoof, a diſeaſe hitherto incurable.

"Young horſes moſt liable to the diſeaſe, fat horſes more

more than lean ones, those at rest more than working ones, least of all those running abroad.

"The peculiar symptoms of the disease are, that the virus in most cases does not produce any sensible alteration in the animal œconomy; the horse has no fever, dullness, or distaste to food, but the animal functions are all regular. The obstruction of the lymphatic glands. The hardness and insensibility of the glands, in this disease, justifies the supposition, that the virus contains some noxious and active effluvia which condense the humours.

"When the discharge is only from one nostril, the gland on that side alone is obstructed. If on compressing the glands (or kernels) between the fingers, an elastic repulsion is felt from the centre of the gland, and the animal shews sensibility of pain, the disease is not the glanders, because in that case the glands are hard and quite insensible." St. Bel ought to have made the exception, that a portion of sensibility might remain in the glands with the incipient glanders.

I shall now give my own sentiments, respecting this disease, which, during the course of about seventeen years, I have seen in all the various shapes and symptoms described by authors, without being altogether an incurious observer. Within the period I have had three or four glandered horses in my possession, two of which I purchased, chiefly in order to make experiment. The first was a cart-horse, and upon what grounds I have now forgotten, I gave him oak-bark powdered in his corn, for near two months, and a considerable quantity of crude mercury; some attention was paid to cleansing his nostrils, and he was kept to constant work. The discharge abated by degrees, and at the end of about six months was scarce visible; but although improved, he was still very faint, and troubled with a consumptive cough. I sold him, and, about two years afterwards, saw him again offered for sale, much in the same condition. I bought a mare of Doctor Snape, which he supposed he had cured of the glanders, caught from being improperly treated in the strangles. She had not the smallest discharge, but was always in a weak and feeble state, and died tabid and wasted away, at grass, in about a twelvemonth. In 1788 I took a well-shaped mare, very valuable could she have been made sound, which was affected with what Markham would have styled "a high running glanders." In fact, she discharged from both nostrils a copious gleet of the very worst colour and scent, the kernels under her jaws were hard and insensible, her hair came off with the slightest pull, she had the real hectic purulent fever, accompanied with symptomatic "mourning of the chine," or the usual tabid appearance, more particularly in the loin. Her eyes were watery and gummy, sometimes her legs swelled, subject to faint sweats on the least exercise, appetite moderate, dung of a loose rotten appearance, coat fine, and laid well; I continued her strictly in the course recommended by Bracken, seven weeks, with alternate amendment and relapse, towards the latter part of the time, with some small apparent improvement; but my man getting weary of so disgusting an attendance, and foreseeing that a cure must be at any rate very distant, I sent her to Smithfield and sold her. I must remark here, that relying on the singular opinion of Bracken, I took no precautions whatever with these glandered horses, except in feeding them at some distance from the sound ones. The cart horse stood in the same stable with five or six others, and yet nothing like infection, or any kind of ill consequence followed, and I have known many similar instances.

Much incertitude and variety has arisen in the definition of the true glanders. The doctrine of those skilful nosologists, the farriers, is as follows; should a horse die with a discharge from his nostrils, and they have no other disease to lay to his charge, they say, he died glandered: but should he have the most fetid running, with all the other acknowledged symptoms of the disease, and yet recover, they pronounce he was not glandered. It is no doubt a safe mode of delivering an opinion. Some of the old writers, give you a receipt "to bring away the glanders," as if the horse had swallowed a peck of nuts, and you wished him to void them. The ostentatious La Fosse, as fond of splitting hairs, and of sublimating diseases into a useless variety, as our countryman Taylor of empiric notoriety, who divided the diseases of the eye into two hundred and forty-five; describes very accurately from the varying colour of the discharge, half a dozen different species of glanders; he might as well have cross-examined the dejections, in order to establish from the various hue, consistence, and scent, as many different kinds of *diarrhœa*. I submit to the profession, "whether every discharge from the nostrils of horse, ass, or mule, fœtid, and from its acrimony capable of erosion, ought not to be called glanders?" It would save much useless disquisition.

The *Glanders*, or *Contagious Catarrh*, is either chronic, as being the effect of inveterate and accumulated catarrh, or acute, as arising immediately from epidemic contagion, or infection from one animal to another; the seat of the disease is in the sublingual glands, which are tumefied and obstructed, in the pituitary membrane, or in the lungs. That the disease is local according to the notion of La Fosse, is so far true, that the discharge always proceeds either from the pituitary membrane, or the lungs, but that the whole mass of fluids must be tainted by the glanderous virus in a confirmed state, I think needs no proof; we are not to wonder at the unwillingness of that author, to accede to such a position, he had his system of locality to support; the vanity of making every consideration give place to a favourite hypothesis, is not confined to the Sieur La Fosse.

Obstruction and stagnation, whether in the air, or animal fluids, I take to be the source of *mephitis*, or contagious virus; circulation, motion, and currency its cure. Stagnation is the nidus (so to speak) where are hatched those *miasmata*, which penetrate, infect, and engender their like, in sensible bodies. Strong pungent fætor, is a distinctive characteristic of malignancy, and the power of infection. When the discharge from the nostrils is very fœtid, it is a proof that much matter is accumulated, and lodged in the *sinûs*, or cavities of the skull, that the pituitary membrane is ulcerated, and that the disease will put on its most malignant form. If the running be whitish, of moderate consistence, and

but little ſmell, rather copious, and from both noſtrils, it in general, I believe, indicates an ulcer in the lungs, that no lodgments of matter are yet formed in the cavities of the ſkull, and that the membrane is not corroded. I have ſeen horſes in this ſtate, fat upon the rib. and capable of conſiderable labour, although dull and ſad; but the peculiar leading ſymptoms of glanders were in full force upon them, to wit, the tumefaction of the kernels, and the rottenneſs of the hair; the diſcharge alſo continued conſtant with no abatement from time. I have my doubts whether this milder ſpecies be at all infectious, and am in want of information why a ſuperior degree of malignancy exiſts in the other, unleſs it be entirely attributable to the circumſtance of the diſcharge in that caſe ſuffering greater impediment.

As to a *Cure for the Glanders*, the eaſieſt, cheapeſt, and that which never fails in the moſt deſperate caſes, after every other remedy has failed, is—the *Collar-Maker's Knife*—In nine caſes out of ten, that is perhaps eligible; but the caſe of a valuable or favourite horſe, or that of mere curioſity, and a laudable attempt at improvement, may juſtify an experiment. There is a natural alliance between ignorance and cruelty; and the old farriers had a moſt cruel pretended cure for this diſeaſe; according to BLUNDEVIL, "they twined out the pith of the horſe's back, with a long wire thruſt up into his head, and ſo into his neck and back." It has long ſeemed probable to me, that there is great analogy between glanders and ſyphilis, and that brute patients under the former diſeaſe confirmed, ought to be treated like men in a venereal hectic. Mercurial and antimonial alterants, agglutinants, gums, woods, turpentines, opium, reſtoratives, particularly bark. What would be the effect of the famous noſtrum of Paracelſus, opium joined with mercury? Or a courſe of ſublimate continued for a time, the favourite medicine of BOYLE, BOERHAAVE, and DARWIN? What of the gaſes (if that could be afforded) of electricity in repeated percuſſions through the head and breaſt? In moſt attempts at cure that I have ſeen or heard of, the ulcers have been deterged and healed, but temporarily, the gleet recurring after awhile; which I think evidently proved that the virus had pervaded the maſs of humours, and that internal medicines had not been enough attended to. GIBSON records two very ſatisfactory inſtances of cure, and in BARTLET may be found a very rational method both of cure and prevention, which laſt is no doubt the chief object; in this author, the uſe of the trepan is explained with plates.

Dr. DARWIN ſeems to refer this diſeaſe entirely to contagion, without being aware, that according to all experience, the horſes which become glandered from contagion, either of the air, or of other horſes, are few indeed to thoſe which contract it from common colds neglected, and hard keeping. In caſe of the epidemic, the doctor recommends once bleeding, and a mild purgative of aloes and hard ſoap; on the appearance of ſymptoms of debility, with cold extremities and ſloughs in the membrane; half an ounce of tincture of opium in a pint of ale, every ſix hours. Turning ſuch out to graſs with the gleet upon them, I have never known to ſucceed.

In general, thoſe who have attempted the cure of this veterinary opprobrium, have made a too violent uſe of medicines of one claſs, have totally neglected thoſe of another, perhaps the moſt material, and have expected ſucceſs at too early a period. As to the external application, LA FOSSE ſhould be punctually followed, and the mercurials and antimonials given in moderate doſes, and long continued, with the woods, gums, &c. On the proſpect of the glanderous virus being ſubdued, a pretty long courſe of corroborants, among which equal quantities of oak-bark, and the yellow Peruvian bark, with ſteel, are moſt to be depended on, ſhould conclude the medical part. A long run at graſs afterwards, and if the patient be a mare, the horſe.

A Chalybeate Beer, may be made as follows: Steel filings, ſixteen ounces; cinnamon and mace, each two ounces; gentian-root bruiſed, four ounces; anniſeeds bruiſed, three ounces. Infuſe in one gallon fine, clear, old, ſtrong beer for a month, ſtopped cloſe, ſhaking often, then ſtrain. Give half a pint for a doſe, in a pint of cold water, once or twice a day, upon an empty ſtomach, leaving the horſe an hour or two to his repoſe. I have taken this from the *Vinum Chalybeatum* of BOERHAAVE, ſubſtituting old beer, which I have reaſon to believe a good menſtruum for the ſteel, inſtead of *Rheniſh* wine; and adding one of the beſt bitters. Should cinnamon and mace be thought too expenſive, *Jamaica* pepper, or allſpice, would be a cheap and proper ſubſtitute. It was the opinion of that great man, that no drug, diet, or regimen, could equal the preparations of iron, for promoting that power in the animal body by which blood is made; of courſe, it muſt be a powerful ſpecific, in all caſes of over relaxed ſolids, debilitation and conſumption. Would not chalybeate beer be a cheap and efficacious medicine for the poor?

Emollient Ejection.

Take linſeed, one ounce; chamomile-flowers, a handful; boil them gently for a few minutes in a pint and half of water; then ſtrain off the liquor, to be uſed three or four times a-day, as warm as can be admitted, without injuring by the heat. If theſe procure not an abatement of the diſcharge, in ten or fourteen days, uſe lime-water, or the following

Reſtringent Injections.

Take roach allum, one ounce: diſſolve it in a quart of lime-water, and add of ſharp vinegar, half a pint. Or,

Take of allum and white vitriol, of each four ounces; calcine them in a crucible, and when cold, powder the calx, and mix it with a gallon of lime-water, and a quart of vinegar. Let the whole ſtand till the heavy parts are ſubſided, and then decant the liquor for uſe.

This injection muſt be thrown up with a ſyringe three times a day, as before ordered, and the noſtrils fumigated

fumigated with the powders of frankincense, mastic, amber and cinnabar, burnt on an iron heated for that purpose; the smoke or fume of these ingredients being easily conveyed through a tube into the nostrils.

This method, if begun in time, will prove successful. But when the disease is of long standing, or very inveterate, there is no other method of cure, than by trepanning the cavities above described; that is, cutting out a piece of the bone, with a proper instrument, and washing the parts affected with proper medicines: for by this means the morbid matter will be removed, and the wound and perforation will soon fill up with good flesh. No person however can perform this operation unless he well understands the anatomy of an horse, and the manner of conducting such manual actions; so that it will be needless to describe it here.

But as internal medicines are useful in the cure of most disorders, so in the glanders they are absolutely necessary. Give therefore the creature a quart or three pints of a strong decoction of guaiacum chips, every day during the whole cure, and purge him at proper intervals. A rowel in his chest will also be of great use.

For the cure of the glanders, MORTIMER gives the following receipt. Take a pint of children's chamber-lye, two ounces of oil of turpentine, half a pint of white-wine vinegar, four ounces of flour of brimstone, half a handful of rue; boil this composition till it comes to a pint, and give it to the horse fasting; and let him fast after it six hours from meat, and twelve from water.

GLEAD. A sort of kite, a bird of prey, which may be taken with lime twigs in the following manner: When you have found any carrion on which kites, crows, pies, *&c.* are preying, set lime twigs every night about the carrion, but let them be small and not set too thick; if otherwise, they being subtle birds, they will suspect some danger or mischief intended against them.

When you perceive one to be fast, do not advance to him presently, for most commonly when they are surely caught they are not sensible thereof.

They may be taken another way, and that is, by joining to a packthread several nooses of hair up and down the packthread, and pegging it down about a yard from the carrion: for many times when they have gotten a piece of flesh, they will be apt to run away to feed by themselves, and if your nooses be thick, it is two to one but some of the nooses catch him by the eg.

GLYSTERS FOR HORSES. *See* PURGING CLYSTERS, *&c.*

GOATS are a kind of cattle that take delight in bushes, briars, thorns, and other trees, rather than in plain pasture grounds, or fields.

The buck goat has under his jaws two wattles or tufts like a beard; his body should be large, his legs big, his joints upright, his neck plain and short, his head small, eyes large, and horns large and bending: his hair thick, clean and long, being in many places shorn for several uses.

He is of great heat, and also so vicious, that he will not shun covering his own dam, though she be yet milch; through which heat he soon decays, and is nigh spent before he is six years old.

The female goat also resembles the male, and is valued if she have large teats, a great udder, hanging ears, and no horns, at least small ones.

There ought not to be above 100 of them in one herd, and in buying it is better to buy several out of one herd, than to chuse in divers parts and companies, that so being led to their pasture, they may not separate, and they will better agree in their houses; the floor of which ought to be paved with stone, or else naturally to be of gravel, for they are so hot, they must have no litter under them, but yet must be kept very clean.

The chief time of coupling them, or covering with the buck, is in autumn, before the month of *December*, that so they may kid and bring forth their young the better, against the leaf and grass spring fresh and tender; at which time they will give the more milk.

They are very prolifick, bringing forth two and sometimes three kids at a time; the bucks must be a little corrected and kept low to abate the heat and lasciviousness of their natures, but young does should be allowed to have abundance of milk.

Neither should you give any kid to a goat of a year or two old to nourish, for such as they bring within the said time are improper for it.

You must not keep your goats longer than eight years, because they being by that time weakened by often bearing, will become barren.

These animals require scarce any thing that is chargeable to keep them, for they browse and feed wholly together as sheep do, and climb up mountains against the heat of the sun with great force; but they are not so fit to be about houses as sheep are; being naturally more hurtful to all manner of herbs and trees.

As for their distempers, except it be in a few particulars, they are the same as those of sheep.

The chief profit of them is their milk, which is esteemed the greatest nourisher of all liquids (womens milk only excepted) and the most comfortable and agreeable to the stomach; so that in barren countries it is often mixed with other milk for the making of cheese, where they have not a sufficient stock of cows.

The young kids are very good meat, and may be managed in all respects after the same manner as lambs.

GODWITS, as also knots, grays, plovers, and curlews, being fowls esteemed of all others the most dainty and dearest, are effectually fed with good chilter wheat and water, given them three a day, *viz.* morning, noon and night; but to have them extraordinary fine, take some of the finest wheat meal, and mingle it with milk, and make it into a paste, constantly sprinkling it while you are kneading it, with grains of small chilter wheat, till the paste be fully mixt together therewith, then make it up into little pellets, and steeping them in water, give to every fowl according as he is in largeness, till his gorge be well filled, and continuing to do this as often as you find his gorge empty, and in a fortnight's time they will be very fat; and with this cramming any kind of fowl whatever may be fattened.

GOING TO THE VAULT (with Hunters) a term used of a hare, which sometimes, though but seldom, takes the ground like a coney.

GOLDFINCH. A seed bird of very curious colours, and were they not so plentiful, would be highly esteemed by us.

They are usually taken about *Michaelmas*, and will soon become tame; but they differ very much in their song, for some of them sing after one fashion, and some of them after another.

They frequently breed in the upper part of plum-trees, making their nests of the moss that grows upon apple-trees, and of wool: quilting the inside with all sorts of hairs they find upon the ground.

They breed three times a year, and the young are to be taken with the nest at about ten days old: and to be fed as follows:

Pound the hemp-seed very fine in a mortar, then sift it through a sieve, and add to it as much white bread as hemp-seed, and also a little flour of canary seed; then with a small stick or quill, take up as much as the bigness of a white pea, and give them three or four of these, several times a day; this ought to be made fresh every day; for if it be sour it will presently spoil their stomachs, causing them to cast up their meat; which if they do, it is ten to one if they live.

These young birds must be carefully kept warm till they can feed themselves, for they are very tender, yet may be brought up to any thing.

In feeding, be sure to make your bird clean his bill and mouth, if any of the meat falls upon his feathers take it off or else they will not thrive.

Such as eat hemp-seed, to purge them, should have the seeds of melons, succory, and mercury; or else let them have lettuce and plantane for that purpose,

When there is no need of purging, give them two or three times a week a little sugar or loam in their meat, or at the bottom of the cage; for all seeds have an oiliness, so that if they have not something to dry it up, in length of time it fouls their stomachs and puts them into a flux, which is of very dangerous consequence.

GONORRHÆA, MATTERING, AND FALL OF THE PENIS, IN HORSES. A stallion weakened by too much covering, will sometimes have a thin white discharge. Bathe the testicles with the restringent embrocation at night, and wash them in the morning with cold water, rubbing them dry with a cloth. Or, ride him up to the belly in water every morning the first thing.

A strengthening Ball. Balsam of Capivi, olibanum, and mastic powdered, each two drachms, bole ammoniac, half an ounce; ball with honey and liquorice powder, and give it night and morning; afterwards once a day, as long as wanted. Should there be a foul ichorous discharge from chafing or ulceration, externally or internally, first wash well with soap and water warm, which it may be also useful to inject. Apply the following, milk-warm, to any excoriation or sore, with a soft rag or sponge: lime-water, one quart; sugar of lead, half an ounce. Mix. In case of fungous flesh, half an ounce of vitriol may be added. Or, liniment of turpentine, and honey of roses. For an injection, take balsam of capivi, half an ounce, with the yolk of an egg, add lime water, half a pint; honey of roses, two ounces. The yard being much inflamed and swelled, foment as often as necessary, with leaves of mallows and marshmallows, chamomile flowers, melilot, and fumitory, each three handfuls; rosemary, wild thyme, southern-wood, and elder-flowers, each two handfuls; juniper and laurel-berries bruised, each four ounces. Boil in eight quarts of water to six. Strain and foment with two flannels, by turns, as warm as convenient, morning and evening. A pint of British brandy may be added. While using, keep it warm over a chafing-dish. The remaining liquor may be put again on the herbs, for next day's occasion.

A seminal gleet in horses, from plethora and want of exercise, is remedied by venesection, mild purgatives, alterants, and regular attention to cleanliness; but partially in some constitutions, where the seminal secretion is very copious: this joined to the other inconvenience of stallions being more liable to grease and foulness than geldings, has often made me wonder that so many of the former should be kept in the *London* brewery. That they are more capable of labour, at least that geldings are fully adequate to every purpose required. It is a great folly in the breeders to keep so many ill-shaped horses stoned. Fast walkers are now the great object of request for the *London* drays, and the best cattle noticed of late are geldings.

In a falling of the yard from debility, and relaxation of the muscles, anoint with wine, one pint, and GOULARD as before (see fundament) or oil of roses and brandy; or foment if much tention, suspending the penis, with a hole left for the urine to pass. Inject the first mixture. It has been advised to make superficial punctures about the yard with a sharp needle, and then to wash with distilled vinegar. The member being returned, bolster it up securely, and charge with bole, whites of eggs, flour, dragon's-blood, turpentine, and distilled vinegar. Discharge a pail or two of cold water, from the pump or well, upon the horse's loins every morning early, rubbing dry; bathe the loins once or twice a day with the restringent embrocation, to which may be added oil of origanum. Cordial balls with a few grains of opium.

GORGE (in Falconry) that part of a hawk which first receives the meat, and is called the craw or crop in other fowls.

GORGED, *i. e.* swelled; this horse's pastern-joint is gorged, and the other has his legs gorged; you must walk him out to disgorge them, or take down the swelling.

GOSHAWK, } (*q. d.* gross-hawk) a large hawk of
GOSSHAWK. } which there are several sorts, differing in goodness, force and hardness, according to the diversity of their choice in cawking; at which time, when hawks begin to fail to liking, all birds of prey do assemble themselves with the goshawk and flock together.

GOURDY-LEGS. A distemper in horses, caused by pains and other fleshy sores.

The

The way to cure them, is first to shave away the hair upon and about the sore place, as close as may be, and then to anoint it with linseed oil and aqua vitæ, shaken together till they are perfectly mixt; and renew the mixing of it as often as you have occasion to use it, because they will separate by standing, without being shaken; anoint the sore place with this every day till the sore be made whole.

GRAYLING. } In angling for this fish, your hook
GRAILING. } must be armed upon the shanks with a very narrow plate of lead, which should be slendereſt at the bent of the hook, that the bait (which is to be a large grashopper, the uppermost wing of which must be pulled off) may come over it the more easily: at the point let there be a cad-bait in continual motion.

The jag-tail, which is a worm of a pale flesh-colour with a yellow tag on its tail, is an excellent bait for the grayling in *March* and *April*.

The haunts of the grayling are so nearly the same with those of the trout, that in fishing for either you may, in many rivers, catch both.

They spawn about the beginning of *April*, when they lie mostly in sharp streams.

Baits for the grayling are chiefly the same as those for the trout, except the minnow, which he will not take so freely. He will also take gentles very eagerly. When you fish for him with a fly, you can hardly use one too small.

The grayling is much more apt to rise than descend; therefore, when you angle for him alone, and not for the trout, rather use a float, with the bait from six to nine inches from the bottom, than the running-line.

The grayling is found in great plenty in many rivers in the north, particularly the *Humber*, and in the *Wye*, which runs through *Herefordshire* and *Monmouthshire* into the *Severn*.

GRAPES. A word sometimes used to signify the arrests, or many tumours that happen in a horse's legs. *See* ARRESTS.

To GRAPPLE. A horse is said to grapple, either in one or both legs; the expression being peculiar to the hinder legs.

He grapples both legs when he lifts them both at once, and raises them with precipitation, as if he were curvetting.

He grapples one leg when he raises it precipitately higher than the other, without bending the ham. Hence they say,

Your horse harps or grapples, so that he must have the string halt in his hough.

GRASS. To put a horse to grass, to turn him out to grass, to recover him.

To take a horse from grass to keep him at dry meat. *See* DRY *and* GREEN MEAT.

GRAVELLING. A misfortune that happens to a horse by travelling, by little gravel stones getting between the hoof and the shoe, which settles at the quick, and there festers and frets.

The way to cure it, is to take off the shoe, and then to draw the place with a drawing iron till you come to the quick; pick out all the gravel, and squeeze out the matter and blood found therein, and afterwards wash it clean with copperas water, then pour upon it sheep's tallow and bay salt melted together, scalding hot, stop up the hole with hards, and set the shoe on again, and at two or three times dressing it will be whole; but do not travel or work him before he is quite well, or let his foot come to any wet.

GRAY-HOUND. } A hunting dog that deserves
GRE-HOUND. } the first place, by reason of his
GREY-HOUND. } swiftness, strength and sagacity in pursuing his game; for such is the nature of this dog, that he is speedy and quick of foot to follow, fierce and strong to overcome, yet silent, coming upon his prey unawares.

The best of them has a long body, strong and pretty large; a neat sharp head, sparkling eyes, a long mouth and sharp teeth; little ears with thin gristles, a straight broad and strong breast, his fore legs straight and short, his hind legs long and straight, broad shoulders, round ribs, fleshy buttocks, but not fat, a long tail, and strong, and full of sinews.

Of this kind, those are always fittest to be chosen among the whelps that weigh lightest, for they will be sooner at the game, and so hang upon it, hindering its swiftness, till the heavier and strong hounds come to offer their assistance; and therefore, besides what has been already said,

It is requisite for a greyhound to have large sides, and a broad midriff, so that he may take his breath in and out more easily: his belly should be also small, (which otherwise would obstruct the swiftness of his course) his legs long, and his hairs thin and soft: the huntsman is to lead these hounds on his left hand, if he be on foot, and on the right if he be on horseback.

The best time to try and train them to their game, is at twelve months old, though some begin sooner with them; with the males at ten months, and the females at eight months old, which last are generally more swift than the dogs; they must also be kept in a slip while abroad, till they can see their course: neither should you run a young dog till the game has been on foot a considerable time, lest being over greedy of the prey he strains his limbs too much.

The greyhounds are most in request with the *Germans*, who give them the name of *windspil*, alluding to their swiftness; but the *French* make most account of those that are bred in the mountains of *Dalmatia*, or in any other mountains, especially of *Turky*, for such have hard feet, long ears, and a bristly or bushy tail.

As to the breeding of greyhounds, in this you must have respect to the country, which should be champagne, plain, or high downs.

The best vallies are those where there are no coverts; so that a hare may stand forth, and endure a course of two or three miles.

Take notice as to the breeding of greyhounds, that the best dog upon an indifferent bitch, will not get so good a whelp as an indifferent dog upon the best bitch.

Observe in general as to breeding, that the dogs and bitches, as near as you can, be of an equal age, not exceeding four years old; however, to breed with a young

young dog and an old bitch, may be the means of producing excellent whelps, the goodness of which you may know by their shapes.

In the breeding of greyhounds in the first place, the dieting of greyhounds consists in these four things, food, exercise, airing, and kennelling.

The food of a greyhound is two-fold; in general, the maintaining of a dog in good bodily condition; and in particular, when a dog is dieted for a wager, or it may be for some distemper he is troubled with.

The general food of a greyhound ought to be chippings, crusts of bread, soft bones and gristles; the chippings scalded in beef, mutton, veal, or venison broth: and when it is indifferent cool, then make your bread only float in good milk, and give it your greyhounds morning and evening, and this will keep them in a good state of body.

But if your dog be poor, sickly and weak, then take sheeps heads, wool and all, clean washed, and having broke them to pieces, put them into a pot; and when it boils, scum the pot, and put a quantity of oatmeal into it, and such herbs as pottage is usually made with; boil these till the flesh is very tender, and feed your dog with this morning and evening, and it will recover him.

If you design your greyhound for a wager, then give him his diet bread as follows: take half a peck of good wheat, and half a peck of the finest, driest oatmeal, grind them together, boult the meal, and having scattered in it an indifferent quantity of liquorice and anniseeds, well beaten together, knead it up with the whites of eggs, and bake it in small loaves, indifferent hard, then soak it in beef or other broths; and having walked him and aired him half an hour after sun-rise in the morning, and half an hour before sun-setting, give him some of it to eat.

He ought to be coursed three times a week, rewarding him with blood, which will animate and encourage him to prosecute his game; but forget not to give the hare all the just and lawful advantage, so that she may stand long before the greyhound, that thereby he may shew his utmost strength and skill before he reap the benefit of his labour.

If he kill, do not suffer him to break the hare, but take her from him, and clean his chaps from the wool of the hare, give him the liver and the lights, and then take him up in your leash, lead him home, and wash his feet with some butter and beer, and put him into the kennel, and half an hour afterwards feed him.

Upon the coursing days, give your hound a toast and butter, or oil, in the morning, and nothing else, and then kennel him till he goes to the course.

The kennelling greyhounds after this manner breeds in them lust, spirit, and nimbleness; it also prevents several dangerous casualties, and keeps the pores close, so as not to spend till time of necessity; therefore suffer not your hound to go out of the kennel, but at the hours of feeding, walking, coursing, or other necessary business.

GREASE [with Hunters] the fat of a boar or hare; but the former has commonly the word bevy added to it, and is termed bevy greale.

GREASE MOLTEN. A distemper in a horse, when his fat is melted by over hard riding or labour, and may be known by his panting at the breast and girting place, and heaving at the flank, which will be visible to be seen the night you bring him in, and the next morning.

GREASE. The grease in horses, is an extravasation, or bursting from the vessels, and afterwards through the skin, of *serum*, or simple humour, in the legs and heels, from the want either of exercise, or the recumbent posture, to promote the circulation of the fluids in those depending parts, "as (according to veterinarians, whose opinion is here sanctioned by Dr. DARWIN) the column of blood pressing on the origins of the veins of the lower extremities, when the body is erect, opposes the ascent of the blood in them; they are more frequently liable to become enlarged, and to produce varixes, or vibices, or, lastly, ulcers about the legs, than on the upper parts of the body." That such is the cause, appears from the well known circumstance of the horse being free from grease abroad, where he constantly walks about to obtain his food, or stretches himself upon the ground at his ease. If the horse be full of flesh, the cure is to be begun by evacuation, such as bleeding, purging, *&c.* and keeping his heels as clean as possible, by washing them with warm water and soap; for nothing promotes the grease more than negligence and nastiness. In general turning out in the day-time, moderate exercise, a large and convenient stall, with good dressing, are the best remedies; but if the grease be got to a great height, and there is a nauseous discharge, after cutting off the hair, and washing the heels with soap and water, bathe them with the following wound water, pretty warm, twice or thrice for three days. Take roch allum, and white vitriol, of each two ounces; powder them together and burn them in a clean fire shovel, till they become a white calx; then take powdered camphire, one ounce, bole armoniac, in powder, two ounces; river or rain water two quarts. Make the water hot, and stir the other things into it. When you use it, it should be shaken up, and a little of it warmed in a pot, and the sores washed with a piece of sponge or rag. Or,

Take of lime-water a pint, of rock-allum and white vitriol, each an ounce.

Some use a laced stocking, which may be made of strong canvas that will not stretch; this stocking should be nicely fitted to the leg, and kept on moderately tight, by which means the enfeebled vessels will be supported until they recover their tone.

Sometimes there will be cracks in the skin about the pasterns: these cracks are sore, and discharge a thin humour, which lodges sand and dirt; and sometimes these cracks form themselves into scabs; when these are observed, clip the hair there as short as possible, spread a thin pledget of tow, with the digestive ointment, and apply it to these cracks and scabs; over this pledget lay a poultice of bran, scalded, and renew the pledget every morning, and the poultice every four or five hours; continue these until the swelling abates, and the cracks, *&c.* are disposed to heal: then,

then, instead of the ointment and poultice, wash the part every day with the above repellent wash, and keep on a tight stocking until the strength of the part is confirmed. *See* SCOWERING.

But if these should fail, let the part be bathed with old verjuice twice a day, and a proper bandage applied. This will infallibly answer if the complaint proceeds from a relaxation of the vessels. If the horse be full of flesh, the cure must be begun by bleeding, rowels, and repeated purging; after which, the following balls should be given, to the quantity of two ounces a day for a month or six weeks, either mixed up with honey, or in his feeds: Take of yellow rosin four ounces, salt of tartar and salt of prunel, of each two ounces; of Castile soap half a pound; and of oil of juniper half an ounce; make the whole into balls of two ounces each, and give one of them every morning.

These balls will carry off the offending humours, and free the blood from its noxious qualities; but at the same time the creature takes these internal medicines, external applications must not by any means be omitted. The legs should be bathed and fomented in order to breathe out the stagnant juices, or render them so thin, that they may be able again to circulate with the common current. The discutient fomentation, mentioned in the Articles of tumours, &c. will answer the intention, especially if a handful of wood-ashes be previously boiled in the water and applied twice a-day. After the parts have been well fomented, let the following poultice be applied; and this method pursued till the swellings are subsided: Take of honey one pound, of turpentine six ounces, incorporate these well together with a spoon; and of the meal of fenu-greek and linseed, of each four ounces; and boil the whole in three quarts of red wine lees, to the consistence of a poultice. Take the vessel from the fire, and add two ounces of camphire in powder; spread it on thick cloths, and apply it warm to the legs, securing it on with a strong roller.

When the swelling is subsided, the sores should be dressed with the following ointment: Take of honey four ounces; of white lead powdered, two ounces; and of verdigris in fine powder, one ounce; mix the whole into an ointment.

But if the sores are very foul, dress them with two parts of the wound ointment and one of ægyptiacum, and apply the following poultice: Take of black soap one pound; of honey half a pound, of burnt alum four ounces, of verdigris, powdered, two ounces, and of wheat-flour a sufficient quantity to make the whole of a proper consistence.

Spread the above on a thick cloth, and fasten it on with a roller.

This disorder is always attended with fever, heat, restlessness, startling, and trembling, inward sickness, and shortness of breath.

His dung is extremely greasy, and he will often fall into a scowering; his blood, when cold, will be covered with a thick skin of fat, of a white or yellow colour, generally the latter; the congealed part of the sediment appears like a mixture of size and grease, so extremely slippery that it will not adhere to the fingers, and the small portion of serum slippery and clammy. The creature soon loses his flesh and fat, the latter of which is probably dissolved into blood: and those that have strength sufficient to sustain the first shock, commonly grow hide-bound for a time, and their legs swell greatly, in which state they continue till the blood and juices are rectified; and if this be not done effectually, the farcy or some obstinate surfeit is generally the consequence, and cannot be removed but with the greatest difficulty.

Horses living upon grains, and other washy and unsubstantial food, are very liable to grease; the foolish custom of clipping, or pulling the heels entirely naked to the skin in cold wintry weather, as we often see poor post-horses served, also subjects them to chilblains and chaps, which soon become greasy. It may endanger a relapse, to suffer horses recovering from the disorder to go abroad with the cracks exposed to the air; a Burgundy pitch plaister is useful.

Method of Cure.

The first proceeding is to bleed pretty plentifully, and repeat the operation two or three days successively, but to take care after the first bleeding to take a small quantity at a time, as otherwise the creature would be rendered too weak to support himself, and his blood too poor to be easily recruited. As soon as he has been bled the first time, let two or three rowels be made, and the emollient clysters prescribed in the Article of Fevers, be daily thrown up to mitigate the fever, and cleanse the intestines from greasy matter. Plenty of water-gruel should at the same time be given him, and sometimes warm water, with a small quantity of nitre dissolved in it. The latter will be of great service, as it will prevent the blood from running into grumous concretions, that prove the source of innumerable disorders, if not cause a total stagnation, and consequently the death of the animal.

In this manner the horse must be treated till the fever is wholly gone, and he has recovered his appetite, when it will be necessary to give him five or six alternative purges at a week's distance from each other, which will make him stale and perspire plentifully, and at the same time bring down the swellings of his legs. The following are well calculated for this purpose: Take of succotrine aloes, six drachms; of gum-guaiacum, in powder, half an ounce; and of diapente, six drachms; make the whole into a ball with a spoonful of oil of amber, and a sufficient quantity of syrup of buckthorn. Or,

Take of succotrine aloes, an ounce (or ten drachms); salt of tartar, half an ounce; ginger, one drachm; treacle, enough to make a ball; if it be necessary to quicken this dose, add to it two drachms of jalap powder.

Repeat this purging ball every eight, or at the most every ten days, and on the days free from purging, give one of the following every morning.

Diuretic

Diuretic Balls.

Take of Venice-ſoap, and yellow roſin, each half a pound; ſalt of tartar and nitre, each two ounces; oil of juniper, half an ounce; beat them into a paſte, and give two ounces, or more, every morning, making it firſt into a ball.

Inſtead of theſe balls, two ounces of nitre may be given every day, allowing plenty of water with it; where it agrees with the ſtomach it anſwers very well, but as the blood in this diſorder is poor and cold, and the whole habit of body needs every aſſiſtance that can contribute to its recovery, the above balls are the moſt adviſeable, and would be much improved as ſtrengtheners, if to each doſe you added half an ounce of the filings of iron, or ruſted iron in powder.

If the legs are extremely full, foment them twice a-day with a fomentation made with bay-berries, wormwood, and chamomile-flowers; an ounce, or a little more of each may be allowed for a gallon of water, to be boiled together for a few minutes; and if the ſores be very foul, dreſs them with the cleanſing ointment, ſpread on pledgets of fine tow, large enough to cover them.

Cleanſing Ointment.

Take half a pound of the digeſtive ointment, melt it gently over a fire; when melted remove it, and as it cools, carefully ſtir into it an ounce of verdigris, finely powdered; continue to ſtir it until the ointment becomes ſtiff.

Over the pledgets that cover the ſores apply the following poultice as often as you uſe the fomentation.

Diſcutient Poultice.

Scald a ſufficient quantity of bran, with a proper quantity of the fomentation juſt now preſcribed; add to it a ſmall quantity of oil to prevent it from drying and ſticking, and ſprinkle upon the face of each poultice when applied, a quarter of an ounce of camphire.

Whatever medicines or methods are uſed, a good nouriſhing diet ſhould be allowed; and, if poſſible, the horſe muſt be put to graſs where he can ſhelter himſelf in a ſtable or a ſhed, at pleaſure: the want of this laſt will greatly prevent the effect of the beſt medicines, and with it medicines will rarely be wanted. If he cannot be turned out day and night, nor even in the day-time, he muſt have a roomy ſtall, where he can move about, lay down, and ſtretch himſelf at full length: it would be beſt if he had the whole ſtable to walk in, for then he would be more apt to lay down often; a circumſtance that conduces very much to advantage, for conſtant ſtanding in a ſtall is what frequently cauſes, and by conſequence muſt continue the diſeaſe.

By purſuing this method the horſe will ſoon be able to do his buſineſs: for this purge will increaſe his fleſh, and mend his appetite; particulars of the greateſt conſequence in the cure, and which cannot be obtained by giving a horſe the common purges of aloes; the method purſued by moſt farriers in the cure of the molten greaſe.

GREAT-HARE (with Hunters) a hare in the third year of her age.

GREEN-FINCH, is a bird of a very mean ſong.

They are plentiful in every county, and breed the ſilleſt of any, commonly making their neſts by the highway-ſide, where every body that finds them deſtroys them at firſt, till the hedges are pretty well covered with green leaves; but they uſually ſit very early in the ſpring, before the hedges have leaves upon them, and build with green moſs that grows at the bottom of the hedges, quilting their neſts very ſorrily on the inſides; nay, they are oftentimes ſo ſlight that a ſtrong wind ſhakes them to pieces, and drops either the young ones or the eggs.

However, they hatch three times a year, and the young are very hardy to bring up: they may be fed with white bread and rape ſeed ſoaked, and are very apt to take the whiſtle, rather than any other bird's ſong; but they will never kill themſelves with ſinging and whiſtling.

The green-finch is ſeldom ſubject to any diſeaſe, but to be too groſs, there being none of the ſeed-birds like him for growing ſo exceſſive fat, if you give him hemp-ſeed, for then he is good for nothing but the ſpit; let him therefore have none but rape-ſeed.

GREEN-HUE (in the Foreſt Law) ſignifies every thing that grows green within the foreſt: and it is alſo called VERT, *which ſee.*

GRICE. A young wild boar.

GRIG. A fiſh, the ſmalleſt kind of eel.

GRIPES, OR CHOLIC IN HORSES. This has been treated of under the Head of Cholic: we here ſhall give Mr. LAWRENCE's treatment. He ſays, the primary cauſe of a common fit of the gripes in a horſe, is nine times out of ten, an accumulation of indurated excrement in the inteſtines; for independent of the ſolid obſtruction ſo occaſioned, the uſual proximate cauſes would ſeldom have power to work thoſe ſerious effects we witneſs; thus in a horſe, the colon of which was not previouſly infarcted and plugged up, the effect of a ſlight cold thrown upon the bowels, or the devouring a few new beans, would probably paſs off with a very moderate ſtruggle from nature.

The ſymptoms ſcarce need deſcription; cold dew at the ear-roots and flanks; frequent pointing to the ſeat of complaint, and a deſire to lie down and roll: ſudden riſing and great agitation; the greatneſs of the agitation, or rather jactitation, no convulſions exiſting, ſeems to form the diagnoſtic in all cholicky complaints.

The cure requires prompt and vigorous meaſures, and plenty of aſſiſtants to conduct them. Looſe ſtable, or out-houſe, well littered down, that the horſe may have room to roll himſelf, without injury. Clothe with warm dry clothes. Man to attend the head, that it be not beat againſt the pavement or wall; another or two to rub the belly well at every quiet interval; a more effectual

effectual help than generally imagined, to disperse the wind. Bleed, if possible in the neck veins, not only to ascertain the quantity, but because surely it cannot be irrational to suppose such a substance as blood, improper to be taken into the stomach, under the circumstances. Whilst medical remedies are preparing, walk the horse about briskly in hand, one following with a whip: or keep him to the jog-trot, but drive him not fast, or harrass him, on any pretence, which has ruptured the belly of many a horse, and which at least often inflames and exasperates the symptoms. Back-rake with a small hand well oiled, and give the common gruel clyster, with half a pint of oil, and a large handful of salt: immediately poured down by the mouth, half a pint of Holland's geneva, rum or brandy, and a like quantity of sweet oil mixed, or a little diluted with thin gruel, if thought too strong; keep the horse on his legs, and exercise him forthwith. If to be obtained soon, and demanded by the exigence, add to the clyster four to six ounces of Glauber's salts. Or, of tincture of jalap, or of senna, two ounces. Or best aloes in very fine powder, half an ounce. And to the drink, three or four ounces syrup of buckthorn. Or, *Elixir Proprietatis*, or *Tinctura sacra*. Castor oil may be used instead of olive. A notched onion may be thrust up the fundament: or an onion and a piece of soap the size of an egg, beat up together into a soft bolus, with a pinch or two of pepper; afterwards a clyster of black soap, one ounce to a pint of warm water. Should suppressed perspiration thrown on the bowels be among the causes, the warm seeds ginger, castor, and camphor, should make part of both the drinks and clysters. For a large cart-horse, where wind is not the predominant symptom, and no appearance of cold, the following drink: Gin, brandy, or rum, and sweet oil, one pint each, mix with the solution of six ounces Glauber's salts, repeat in two or three hours, warm gruel in the interim. The repetition of these must be left to the judgment of the practitioner; but plenty of warm gruel and warm water, should ever, in these cases, be at immediate call, as sometimes the throwing in two or three gallons of these at both ends, and at proper intervals, will do the needful with little or no assistance from the apothecary. Bracken cautions against the common practice of farriers, who give large quantities of Venice treacle, mithridate or diascordium, both by way of drink and clyster, upon loaded intestines; thereby locking up the cause of the disease still more securely: he compares it to firing a pistol into the horse's fundament, by way of clearing all obstructions at once. Mashes. A week after the cure, a gentle purge or two.

The Flatulent, or Wind Cholic, is known by great fullness and tension of the belly, from rarefaction of the air contained in the intestines; *borborigmi*, or rumbling of the guts, discharges of wind, and frequently strangury, occasioned by the fullness and pressure of the straight gut upon the neck of the bladder; this last is denoted by the horse rolling upon his back, and by frequent ineffectual attempts to stale. Crib-biters, from constantly sucking in large quantities of air, are particularly subject to windy gripes.

The intention of cure plainly consists in the speedy exhibition of volatile and carminative, of diuretic, and laxative medicines, which ought to be given both in the form of clyster, and by the mouth. Ball. Strasburgh, or Venice turpentine, juniper berries, and carraway seeds pounded, each half an ounce; fine aloes well powdered, two drachms; sal prunel, one ounce; chymical oil of juniper, one drachm; salt of tartar, two drachms; ball with honey and hard soap. Wash down with a pint or two warm gruel. Or. The following drink, Castile soap and nitre, one ounce each; juniper berries, and carraway seeds, half an ounce each; ginger powdered, two drachms; Venice turpentine, dissolved with the yolk of an egg, six drachms; tincture of senna, an ounce or two. Mix with warm ale and treacle. Repeat. Clyster with the addition of carminatives; chamomile flowers, two handfuls; anise, coriander, and fennel seeds, one ounce each; long pepper half an ounce. The following herbs are prescribed, but as in general there may be a difficulty in obtaining them, you may substitute water-gruel, which, in truth, is always found an excellent substitute. Mallows, pellitory, elder-flowers, the herb mercury, mullein, bear's-breech, &c.

St. Bel remarks on the difficulty of hitting the critical moment, proper for the exhibition of opium in long continued pains; and of regulating the quantum of the dose. He pretends, that should the opiate be too weak, the pains will be enraged; if too powerful, that it will hasten death. Bracken determines the proper time for the use of opiates to be, after the cause of the disease shall have been removed by lenient purgatives and clysters; when the former are requisite to complete the cure, by appeasing pain, allaying the tumult of the bowels, and obviating superpurgation or flux. Proper forms will be found after the next species of cholic, since they may be necessary in both.

The Inflammatory or Red Cholic, is supposed to originate in some internal injury; it is that species with which race-horses are sometimes afflicted, as St. Bel asserts, from the immoderate use of purgatives, which act as caustics upon the nervous fibres of the stomach and intestines, and even irritate the extremities of the small blood vessels to that degree, as to cause them to contract, and thereby impede the course of the blood.

The common symptoms, in this species are violent; the horse discovers pain if his flanks or belly are pressed. The conjunctive membrane of the eye appears much inflamed, the anus the same, and of a bright red colour; the high degree of inflammation is chiefly occasioned by the acrimony of the bile. There is an appearance of looseness in the beginning, a little dung is ejected with a hot scalding water; sometimes a burning fever; and the progress of inflammation so rapid, that a mortification in the abdomen takes place in a few hours.

Bleed as largely as you can with safety. In the urgency of the case, and before medicines can be obtained, gruel and sweet oil, or even warm water and oil mixed, may be given at either end. Castor oil, one quarter to half a pint; nitre, two ounces; camphor, one drachm; make the drink with gruel, or de-

 coction

coction of febrifuge herbs and honey. Repeat, or substitute within an hour or two: Turkey rhubarb in powder, half an ounce; diapente, one ounce; salt of tartar, two drachms; ginger grated, and oil of juniper, one drachm each; ball with oil of amber. A clyster of the herbs chamomile, mallows, &c. two ounces lenitive electuary. The following Purging Drink, if necessary: Senna, two ounces; liquorice root, one ounce; salt of tartar, two drachms; carraway and juniper berries bruised, one ounce each; boil in a quart of water to a pint, strain and add two ounces lenitive electuary, with good old white wine half a pint. Should a tendency to mortification appear, it must be resisted by bark and wine, both in drink and clysters. The drink: White wine, or fine beer, one quart, dissolve in it the size of an egg, common cordial ball, and one ounce Venice treacle (add or omit according to circumstances) one hundred drops laudanum, and the same number tincture of castor. Stir well, and give it warm. Or. The ball. Diapente, one ounce; diascordium, half an ounce; myrrh, two drachms; ball with liquorice powder, and two drachms oil of amber.

There is no distinct or peculiar method of treating the Hepatic, or Bilious Cholic; it is generally inflammatory, and requires similar treatment with the above, regard being had to the medicines prescribed in the Yellows. The cholic produced by hair-balls, bezoar-stones, and concretions in general, is said to be mortal.

To GROAN [with Hunters] a buck is said to groan, or hoot, when he makes a noise at running.

GROOM. A man who looks after horses, and should demean himself after so gentle and kind a manner towards horses, as to engage them to love him; for a horse is reckoned one of the most loving creatures to man of all other brutes, and in every respect the most obedient.

Therefore if he be dealt with mildly and gently his kindness will be reciprocal; but if the groom or keeper be harsh and choleric, he will put the horse out of patience, and make him become rebellious, and occasion his biting and striking.

Therefore the groom should frequently dally, toy, and play with the horses under his care, talking to them, and giving them good words, leading them out into the sun-shine, there run and shew them all the diversions he can.

He must also duly curry-comb and dress him, wipe away the dust, pick and clean him, feed, pamper, and cherish him; and constantly employ himself in doing something about him, as looking to his heels, taking up his feet, rubbing upon the soles, *&c.*

Nay, he ought to keep him so well drest, that he may almost see his own face upon his coat; he must likewise keep his feet stopped, his heels free from scratches and other sorances, ever having a watchful eye over him, and overlooking all his actions, as well feeding as drinking; that so no inward infirmity may seize upon him; but that he may be able to discover it, and endeavour to cure. The qualifications necessary in a groom, are obedience, fidelity, patience, diligence, *&c.*

First, he ought to love his horse in the next degree to his master, and endeavour by fair usage to gain a reciprocal love from him, and an exact obedience; which if he knows how to obey his master, he will the better be able to teach it his horse: and both the one and the other are to be obtained by fair means, rather than by passion and outrage. For those who are so irrational themselves, as not to be able to command their own passions, are not fit to undertake the reclaiming of a horse, who is by nature an irrational creature.

He must then put in practice the patience, which he ought at all times to be master of, and by that, and fair means, he may attain his end: for no creature is more tractable than a horse, if he be used with kindness to win him.

The next thing requisite to a groom is neatness, as to keeping his stable clean swept, and in order; saddles, housing-cloths, stirrups, leathers and girths clean, and above all his horse clean dressed and rubbed.

Lastly, diligence is requisite in a daily discharge of his duty, and observing any the smallest operation, whether casual or accidental, either in his countenance, as symptoms of sickness; or in his limbs and gait, as lameness: or in his appetite, as forsaking his meat; and immediately upon any such discovery to seek out a remedy.

This is the substance of the duty of a groom in general.

We will suppose *Bartholomew-tide* to be now come, and the pride and strength of the grass to be now nipped by the severe frosts and cold dews which usually accompany this season, so that the nourishment thereof turns into raw crudities, and the coldness of the night (which is injurious to horses) abates as much flesh and lust as he getteth in the day, wherefore he is now to be taken up from grass, whilst his coat lies smooth and sleek.

The horse designed for hunting, &c. being brought home, the groom must set him up for that night in some secure and spacious place, where he may evacuate his body, and so be brought to warmer keeping by degrees; and the next day set him up in the stable.

It is indeed held a general rule amongst grooms, not to clothe or dress their horses till two or three days after their stabling; but there seems no other reason but custom for this practice.

Some also give the horse wheat straw to take up his belly at his first housing; but others utterly disapprove of it.

For the nature of a horse being hot and dry, if he feeds on straw which is so; likewise, it would straiten his guts, and cause an inflammation in his liver, and by that means distemper his blood; and besides it would make his body so costive, that it would cause a retention of nature, and cause him to dung with great pain and difficulty, whereas full feeding would expel the excrements according to the true intention and inclination of nature. Therefore, let moderate airing, warm cloathing, good old hay, and old corn, supply the place of wheat-straw.

The first business of a groom after he hath brought his horse

horse into the stable, is, in the morning, to water him, and to rub his body over with a warm wisp, a little moistened, and afterwards with a woollen cloth; also to clean his sheath with his wet hand from all the dust it hath contracted during his running, and to wash his yard either with white-wine or water.

He must then trim him after the manner that other horses are trimmed, except the inside of his ears, which ought not to be meddled with for fear of making him catch cold.

In the next place he must take him to the Farrier's, and there get him shod with a set of shoes, answerable to the shape of his feet, and not to pare his feet to make them fit his shoes.

Let his feet be well opened between the quarters and the frush, to prevent his being hoof bound, and let them be opened straight, not sideways; for by that means, in two or three shoeings, his heels (which are the strength of his feet) will be cut quite away. Pare his foot as hollow as you can, and then the shoe will not press upon it.

The shoe ought to come near the heel, but not to be set so close as to bruise it, nor yet so open as to catch in his shoes, if he happens to over reach at any time, and so hazard the pulling them off, the breaking of the hoof, or bruising of his heel.

The webs of his shoes ought to be neither too broad, nor too narrow, but of a middling size, about the breadth of an inch, with stopped sponges, and even with his foot; for though it would be for the advantage of a travelling horse's heel, to have a shoe set a little wider than the hoof on both sides, that the shoe may bear his weight, and not his foot touch the ground, yet the hunter being often forced to gallop on rotten spongy earth; if he have them larger it would hazard his lameing, and pulling off his shoes, as has been before observed.

There is an old proverb, *before behind and behind before;* that is, in the fore feet the veins lie behind, and in the hinder feet they lie before; therefore the farrier ought to take care that he does not prick him, but leave a space at the heel of the fore feet, and a space between the nails at the toe.

Having got his shoes set on as above directed, a great deal of his hoof will be left to be cut off at his toe.

That being cut off, and his feet smoothed with a file, he will stand so firm, and his feet will be so strong, that he will tread as boldly on stones as on carpet ground.

The horse being shod, and it being time to water him, let him stand in the water, which will (in the opinions of some) close up the holes, which the driving of the nails has made.

Afterwards have him gently home, tie him up to the rack, rub him all over, body and legs, with dry straw, then stop up his feet with cow-dung, give him a quartern of clean sifted old oats, and a quantity of hay, sufficient to serve him all night, and leave him till the next morning.

To GROPE OR TICKLE, is a method of fishing, by putting one's hand into water-holes where fish lie, and tickling them about the gills; by which means they will become so quiet, that a man may take them in his hand and throw them upon land; or if they are large fish, he may thrust his fingers into their gills and bring them out.

GROUND ANGLING, is a way of fishing under water without a float, only with a plumb of lead, or a bullet, which is better, because it will roll on the ground.

This method of fishing is very expedient in cold weather, when the fish swim very low.

The bullet is to be placed about nine inches from the baited hook: the top must be very gentle, that the fish may the more easily run away with the bait, and not be scared with the stiffness of the rod: you must not strike as soon as you see the fish bite, but slack your line a little, that he may the better swallow the bait and hook.

As for the tackle, it ought to be fine and slender; strong and big lines only serve to fright the fish.

The morning and evening are the chiefest seasons for the ground-line for trout; but if the day prove cloudy, or the water muddy, you may fish at ground all the day long. *See* ANGLING.

GROUND BAIT. Such places as you frequently angle at, you should once a week at least, cast into, all sorts of corn boiled soft, grains washed in blood, and dried and cut to pieces, snails, chopped worms, fowl's-guts, beast's-guts, and livers, by which carp and tench are drawn to the place; and, to keep them together, throw half a handful of ground malt now and then as you angle. *See* BAIT.

GROUND PLUMBING, is the finding out the depth of the water in fishing; to do which you should use a musket-bullet with a hole made in the middle of it, or any other sort of plummet, which must be tied to a strong twist, and hung on the hook, which will effect the business. *See* ANGLING.

GROUPADE (in Horsemanship) a lofty kind of manage, and higher than the ordinary curvets.

GROUS, a species of game well known among sportsmen; of which birds there are several sorts.

GRUBBING A COCK (with cock-fighters) a term used for the cutting off the feathers under his wings; but this is not allowable by the cock-pit law; neither is it allowable to cut off his feathers in any handling place.

GUDGEON; this fish, though small, is of so pleasant a taste, that it is very little inferior to a smelt.

They spawn twice in the summer season, and their feeding is much like the barbels in streams and on gravel, slighting all manner of flies; but they are easily taken with a small red worm, fishing near the ground; and being a leather-mouthed fish, will not easily get off the hook when struck.

They are usually scattered up and down every river in the shallows, in the heat of summer; but in autumn, when the weeds begin to grow sour or rot, and the weather colder, then they gather together, and get into the deeper parts of the water; and are to be fished for there, with your hook always touching the ground, if you fish

for him with a float, or with a cork; but many will fish for the gudgeon by hand, with a running-line upon the ground, without a cork, as a trout is fished for; and it is an excellent way, if you have a gentle rod and as gentle a hand.

But although the small red worm before-mentioned is the best bait for this fish, yet wasps, gentles, and cad-baits will do very well: you may also fish for gudgeons with two or three hooks at once, and find very pleasant sport, where they rise any thing large: when you angle for them, stir up the sand or gravel with a long pole; this will make them gather to that place, and bite faster, and with more eagerness.

GUNIAD. } This fish is excellent food, and is
GUINARD. } not found any where but in a large water called *Pemble-mere*: but that which is most remarkable is this, that the river which runs by *Chester*, has its head or fountain in *Merionethshire*, and its course runs through this *Pemble-mere*, which abounds as much with guniads as the river *Dee* does with salmon, of each both affording great plenty; and yet it was never known that any salmon was ever caught in the mere, or ever any guniads taken in the river.

GUN-POWDER. The best is small-grained, hard to crumble between the finger and thumb, and of a blueish colour. *See* FOWLING-PIECE.

GYRFALCON. *See* GERFALCON.

GYRLE, a roe-buck, so called the first year.

HAIR, in speaking of horses, the *French* use the word *poil* (*i. e.* hair) to signify their colour; and sometimes it is used to signify that part of the flank that receives the prick of the spur.

Pale hair are those parts of the skin that approach more to white than the rest, being not of so high a tinge.

Staring hair (or planted coat) is said of a horse whose hair bristles up, or rises upright; which disorder is owing to being ill curried, not well covered, or too coldly housed.

In order to make the hair of a horse smooth, sleek, and soft, he must be kept warm at heart, for the least inward cold will cause the hair to stare; also sweat him often, for that will loosen and raise the dust and filth that renders his coat foul; and when he is in the height of a sweat, scrape off all the white foam, sweat, and filth, that is raised up, with an old sword blade, and that will lay his coat even and smooth, and also when he is bled, if you rub him all over with his own blood, and so continue two or three days, and curry and dress him well, it will make his coat shine.

Hair falling, or shedding from the mane or tail of a horse, is caused either by some heat taken, that has engendered a dry mange there; or it proceeds from some surfeit, which causes the evil humours to resort to those parts.

To cure this, anoint the horse's mane and crest with black soap; make a strong lee of ash ashes, and wash it all over with it.

But if a canker should grow on a horse's tail, which will eat away both flesh and bone; then put some oil of vitriol to it, and it will consume it: and if you find the vitriol corrodes too much, you need only to wet it with cold water, and it will put a stop to it.

If you have a mind to take away hair from any part of a horse's body, rub it with the gum that grows on the body of ivy, or the juice of fumitory that grows among barley, or boil half a pound of lime in a quart of water, till a fourth part is consumed: to which add an ounce of orpiment, and lay a plaister on any part of the horse, and it will do the business in a few hours.

The hair being thin, which is unsightly in a horse, take the ashes of fern four ounces, the ointment of marshmallows two ounces, a drachm of the oil of petroleum, and an ounce of the powder of birthwort-roots: wash or anoint the place with them, mixed with a like quantity of oil and wine, adding thereto an ounce of the honey of roses: and continue so to do for a month together: or, for want of these, you may wash the horse with a lye made of the ashes of pease-straw, wherein the green husks of walnuts and red sage have been concocted.

To take off hair, take soot of wood two ounces, oil of tartar two drachms, the calcshe of egg-shells half an ounce, with an ounce of unslaked lime: make them into a plaister with oil of spike, and apply it to the place you design to have bare or thinner; the hair at that time being close clipped.

How to dye the hair of a horse.

When you have a white horse, or a horse with white spots, and you are willing to conceal them for some time, take a pound of lime, a pound of gold litharge, a quartern of castile-soap cut small; put the whole in a large pot, and pour in rain water, by little and little, till the lime heats and dissolves; then add more water, and keep stirring it with a wooden ladle: when it comes to the consistence of a clear pap, apply it nicely upon the hair, in the places you want to blacken; cover it with paper or a linen rag, and leave the horse tied up for some hours till it becomes dry; then wash the part with water and soap, and the more you wash it the blacker it will appear. This may be done in any part where the hair grows, except the nose, where the hair is very thin. You must take care however, that the composition does not come to the skin, for it would certainly fetch it off.

To paint the hair of the eye-brows of an old horse.

Take two ounces of aqua-fortis, dissolve in it half an ounce of leaf-silver, and add an ounce of rose-water; lay on this composition delicately with a pencil on the eye-brows, and take great care that none of it gets into the eyes. If they are not stained the first time, you must repeat it as often as it dries, till it has the effect. If the horse be bay, you must put into the composition an ounce of umber; if sorrel, an ounce of litharge of gold.

To

To make hair grow again that is fallen off, whether through the itch, or a wound in what part ſoever it be:

Take ointment of poplar-buds and virgin honey, an equal quantity of each; mix them well together, and rub with this twice every day the places that are bare; continue this for fifteen or twenty days, in which time the hair will grow again, as thick and ſmooth as if it had never fallen off.

Another way.

Take the roots of flat ſedge, which grows upon the borders of ſtanding waters, and, having cleanſed them well, boil them in water to a pappy conſiſtence, and then add as much virgin-honey as you can conveniently mix with. Put ſome of this compoſition freſh every day upon the bald places, and then continue to do thus for fifteen or twenty days, and you will perceive the hair return.

HALBERT, is a ſmall piece of iron one inch broad, and three or four inches long, ſoldered to the toe of a horſe's ſhoe which jets out before, to hinder a lame horſe from reſting, or treading upon his toe.

The halbert ſhoes do of neceſſity conſtrain a lame horſe, when he goes at a moderate pace, to tread or reſt on the heel, which lengthens and draws out the back ſinew that was before in ſome meaſure ſhrunk.

HALLIER-NET OR BRAMBLE-NET, an oblong net to take quails, &c. *See Plates* VII. *and* XII. *See* BRAMBLE-NET.

HALTER FOR A HORSE, is a head-ſtall of *Hungary* leather, mounted with one, and ſometimes two ſtraps, with a ſecond throat-band, if the horſe is apt to unhalter himſelf.

HALTER CAST, is an excoriation of the paſtern, occaſioned by the halter being entangled about the foot upon the horſe's endeavouring to rub his neck with his hinder foot.

Unhalter; a horſe is ſaid to unhalter himſelf, that turns off the halter.

If your horſe is apt to unhalter himſelf, you muſt get him a halter with a throat-band.

Strap, or ſtring of a halter, is a cord or long ſtrap of leather made faſt to the head-ſtall, and to the manger, to tie the horſe.

Do not bridle your horſe till you ſee if he is halter caſt. *See* TRICK.

Halter caſt is thus: when a horſe endeavours to ſcrub the itching part of his body, near the head or neck, one of his hinder feet entangles in the halter, when by the violent ſtruggling of the horſe to diſengage himſelf, he ſometimes receives very dangerous hurts in the hollow of his paſtern.

For the cure of this, take linſeed oil and brandy, of each an equal quantity; ſhake them together in a glaſs till they are well mixt, and anoint the ſorance, morning and evening, firſt having clipt away the hair; but take care to keep the foot very clean.

Another eaſy remedy is, take oil and wine, of each an equal quantity; boil them together, till the wine is evaporated; and apply the remainder of the oil once a day to the part, which will be quickly healed.

HALTING [in a Horſe]. A limping, or going lame, an irregularity in the motion of an horſe ariſing from a lameneſs in the ſhoulder, leg, or foot, which makes him ſpare the part or uſe it timorouſly. Halting happens ſometimes before, and ſometimes behind; if it be before, the hurt muſt of neceſſity be in the ſhoulder, knee, flank, paſtern, or foot.

If it be in the ſhoulder, it muſt be towards the withers, or in the pitch of the ſhoulder, and may be known in that he will a little draw his leg after him, and not uſe it ſo nimbly as the other.

If he caſt it more outward than the other, it is a ſign of lameneſs, and that the grief lies in the ſhoulder: then take him in your hand and turn him ſhort, on either hand, and you will find him to complain of that ſhoulder he is lame of, and he will either favour that leg or trip in the turning: alſo lameneſs may be ſeen by him while ſtanding in the ſtable; where he will hold the lame leg out more than the other, and if when you are upon his back, he complains more than otherwiſe he does, the grief certainly lays in the withers; ſo that griping him hard you will perceive him to ſhrink, and perhaps offer to bite.

If he treads thick and ſhort before, then the grief is upon the pitch of the ſhoulder, cloſe to the breaſt, which may be diſcovered by ſetting the thumb, and preſſing it hard againſt the place, and thruſting him with it (if you would have him go back) upon which he will ſhrink, and put back his leg, foot and body: if the grief be in the elbow, it may be known by pinching him, with the fore fingers and thumb, and then he will hold up his leg and offer to bite.

But if the grief be in the knee, it may be diſcovered by the horſe's ſtiff going; for he will not bend it ſo nimbly as he does the other.

If it be in the flank, or ſhin-bone, the ſame may be ſeen or felt, it being a back ſinew, ſplinter, ſtrain, or the like.

If it be in the bending of the knee, it is a malander, which is alſo eaſily diſcovered.

Farther, when the paſtern, or joint, is affected, it may be known by his not bending it ſo well as the other: and if you put your hand upon the place, you will find it very hot.

If it be in the foot, it muſt be either in the coronet or ſole: if in the coronet, probably it comes by ſome ſtrain or wrench.

If in the hoof by ſome over-reach, or diſtemper in or about the frush.

If in the ſole from ſome prick, accloy, nail, &c.

HAM } of a horſe, is the ply or bending of
HOUGH } the hind legs, and likewiſe comprehends the point behind, and oppoſite to the ply, called the hock.

The hams of a horſe ſhould be large, full, and not much bended; as alſo diſcharged of fleſh, nervous, ſupple, and dry, otherwiſe they will be ſubject to many imperfections, as the capelet, curb, jardon, ſelander, ſpavin, variſſe, veſſignon, &c.

HAMBLING.

HAMBLING } of Dogs, [in the forest law] is
HAMELING } the same as expediting or lawing; properly the hamstringing, or cutting of dogs in the ham.

HAND, is a measure of a fist clinched, by which we compute the height of a horse: the *French* call it *paume*, and had this expression and measure first imparted to them from *Liege*.

A horse of war should be sixteen hands high.

Hand: spear-hand, or sword-hand, is the horseman's right-hand.

Bridle-hand, is the left-hand of the horseman. There are several expressions which relate to the bridle-hand, because that gives motion to the bitt-mouth, and serves to guide the horse much more than the other helps.

A horseman ought to hold his bridle-hand two or three fingers above the pommel of the saddle.

This horseman has no hand; that is, he does not make use of the bridle but unseasonably, and does not know how to give the aids or helps of the hand with due nicety.

To keep a horse upon the hand, is to feel him in the stay upon the hand, and to be prepared to avoid any surprisal or disappointment from the horse.

A horse is said to be, or rest, upon the hand, that never refuses, but always obeys and answers the effects of the hand.

To make a horse right upon the hand, and free in the stay, he might be taught to know the hand by degrees and gentle methods; the horseman must turn him, or change hands, stop him, and manage with dexterity the *appui*, or pressure of his mouth, so as to make him suffer chearfully and freely the effect of the bitt-mouth, without resisting, or resting heavy upon the hand.

The short, or hand-gallop, teaches horses to be right upon the hand.

A light hand. A good horseman ought to have a light hand; that is, he ought only to feel the horse upon his hand, in order to resist him when he attempts to slip from it; he ought, instead of cleaving to the bridle, lower it as soon as he has made his resistance.

If a horse, through an over-bearing eagerness to go forward, presses too much upon the hand, you ought to slack your hand at certain times, and keep a hard hand at other times, and so disappoint the horse of pressing continually upon the bitt.

Now this facility or liberty in the horseman of slacking and stiffening the hand, is what we call a good hand.

To slack, or ease the hand, is to slacken the bridle.

To hold up, or sustain the hand, is to pull the bridle in.

To guide a horse by the hand, is to turn or change hands upon one tread.

A horse is said to force the hand when he does not fear the bridle, but runs away in spite of the horseman.

To make a horse part from the hand, or suffer him to slip from the hand, is to put on at full speed.

To make a horse part right from the hand, he should not put himself upon his back or reins, but bring down his hips.

All hands. A horse that turns upon all hands upon a walk, trot, or gallop.

To work a horse upon the hand, is to manage him by the effect of the bridle, without interposing any other helps, excepting those of the calves of the legs, upon occasion.

Fore-hand and hind-hand of a horse, is an expression distinguishing the parts of a horse, as divided into the fore and hind parts, by the situation of a horseman's hand.

The parts of the fore-hand, are the head and neck, and the fore-quarters.

Those of the hind-hand, include all the other parts of his body.

HAND-HIGH, is a term used in horsemanship, and peculiar to the *English* nation, who measure the height or tallness of a horse by hands, beginning with the heel, and measuring upwards to the highest hair upon the withers. A hand is four inches.

HANDLING, [with cock-fighters] a term that signifies the measuring the girth of them, which is done by griping one's hand and fingers about the cock's body.

HAQUENEE, an obsolete *French* word for an amble horse.

To HARBOUR, [hunting term] a hart is said to harbour when he goes to rest; and to unharbour a deer, is to dislodge him.

HARD Horse, is one that is insensible of whip or spur.

HARE, is a beast of venery, or the forest; peculiarly so termed in the second year of her age; in the first she is called a leveret; and in the third a great hare. By old foresters the hare is called the king of all beasts of venery.

There are four sorts of hares; some live in the mountains, some in the fields, some in marshes, and some every where without any certain place of abode. The mountain hares are the swiftest; the field hares are not so nimble; and those of the marshes are the slowest; but the wandering hares are the most dangerous to follow, for they are so cunning in the ways and mazes of the fields, running up the hills and rocks, because by custom they know a nearer way; with other tricks, to the confusion of the dogs, and discouragement of the hunters.

It will not be improper to give a description of the parts of a hare, since it is admirable to behold how every limb and member of this beast is composed for celerity.

In the first place the head is round, nimble, short, yet of convenient length, and apt to turn every way.

The ears are long and lofty, like those of an ass; for nature has so provided, that every fearful and unarmed creature should have long and large ears, that by hearing it might evade its enemies, and save itself by flight: the lips continually move, while they are asleep as well

as awake; and from the ſlit they have in the middle of their noſe comes the name of hare-lip, found in ſome men.

The neck of a hare is long, ſmall, round, ſoft and flexible; the ſhoulder-bone ſtraight and broad, for her more eaſy turning; her legs before ſoft, and ſtand broader behind than before, and the hinder legs longer than the fore legs: the breaſt is not narrow, but fitted to take more breath than any other beaſt of that bigneſs: it has a nimble back and a fleſhy belly, tender loins, hollow ſides, fat buttocks filled up, and ſtrong and nervous knees. Their eyes are brown, and they are ſubtle, but not bold; ſeldom looking forward, becauſe they go by leaps: their eye-lids coming from their brows, are too ſhort to cover their eyes, ſo that when they ſleep they remain open.

They have certain little bladders in their belly, filled with matter, out of which both ſexes ſuck a certain humour and anoint their bodies all over with, by which they are defended againſt rain.

Though their ſight is dim, yet they have an indefatigable faculty of ſeeing; ſo that the continuance of it, though but in a mean degree, makes amends for the want of the excellency of it in them.

They feed abroad, becauſe they would conceal their forms, and never drink, but content themſelves with dew, which makes them frequently grow rotten.

As it is ſaid before, every limb of a hare is compoſed for ſwiftneſs, and therefore ſhe never walks or treads, but jumps; her ears lead her the way in the chaſe, for with one of them ſhe harkeneth to the cry of the dogs; and the other ſhe ſtretches forth like a ſail, to help on her courſe: always ſtretching her hinder beyond her former, and yet not hindering them at all; and in paths and highways ſhe runs more ſpeedily.

The hares of the mountains often exerciſe themſelves in the vallies and plains, and through practice grow acquainted with the neareſt way to their forms, or conſtant places of abode; ſo that when at any time they are hunted in the fields, ſuch is their ſubtil dodging, that they will dally with the huntſman till they ſeem to be almoſt taken, and then on a ſudden take the neareſt way to the mountains, and ſo take ſanctuary in the inacceſſible places, to which neither dogs nor horſes can or dare aſcend.

Hares which frequent buſhes and brakes are not able to endure labour, nor are very ſwift, becauſe of the pain in their feet, growing fat by means of idleneſs, and not uſing themſelves to running.

The field hare, being leaner of body, and oftener chaſed, is more difficultly taken by reaſon of her ſingular agility; for when ſhe begins her courſe, ſhe bounds up from the ground as if ſhe flew, afterwards paſſes through brambles, over thick buſhes and hedges, with all expedition; and if ſhe cometh into deep graſs or corn, ſhe eaſily delivers herſelf and ſlides through it, always holding up one ear, and bending it at pleaſure, to be the moderator of her chaſe.

Neither is ſhe ſo improvident and prodigal of her ſtrength, as to ſpend it all in one courſe, but ſhe has regard to the force of her purſuer, who if he be ſlow and ſluggiſh, ſhe is not profuſe of her ſtrength, nor uſes her utmoſt ſwiftneſs, but only advances gently before the dogs, yet ſafely from their clutches, reſerving her greateſt ſtrength for the time of her greateſt neceſſity, knowing ſhe can out-run the dogs at her pleaſure, and therefore will not ſtrain herſelf more than ſhe is urged.

But if ſhe be purſued by a dog that is ſwifter than the reſt, then ſhe puts on with all the force ſhe can, and having once left the hunters and dogs a great way behind her, ſhe makes to ſome little hill, or riſing ground, where ſhe raiſes herſelf upon her hinder legs, that thereby ſhe may obſerve how far off, or how near her purſuers are.

The younger hares, by reaſon of their weak limbs, tread heavier on the earth than the older, and therefore leave the greater ſcent behind them.

At a year old they run very ſwiftly, and their ſcent is ſtronger in the woods than in the plain fields; and if they lie down on the earth (as they love to do) in red fallow grounds, they are eaſily deſcried.

Their footſteps in winter are more apparent than in ſummer, becauſe as the nights are longer, they travel further; neither do they ſcent in winter mornings ſo ſoon as it is day, till the froſt is a little thawed; but eſpecially their footſteps are uncertain at the full of the moon, for then they leap and play together, ſcattering or putting out their ſcent or ſavour; and in the ſpring-time alſo, when they do engender, they confound one another's footſteps by multitudes.

Hares and rabbets are miſchievous to nurſeries and newly planted orchards, by peeling off the bark of the plants; for the prevention of which ſome bind ropes about the trees to a ſufficient height; others daub them with tar, which being of itſelf hurtful to young plants, the miſchief is prevented by mixing it with any kind of greaſe, and boiling it over a fire, ſo as both may incorporate; then with a bruſh or little broom, daub over the ſtem of the tree as high as a rabbet or hare can reach; do this in *November*, and it will ſecure the trees for that whole year, it being the winter-time only in which they feed upon the bark.

Alſo ſome thin ſtuff out of a houſe of office, or the thick tempered with water, has been often applied with good ſucceſs; or the white-waſh made uſe of by plaiſterers for whitening houſes, done once a year over the trees with a bruſh, will preſerve them from hares, deer, and other animals.

As for ſuch hares as are bred in warrens, the warreners have a crafty device to fatten them, which has been found by experience to be effectual; and that is, by putting wax into their ears to make them deaf, and then turning them into the place where they are to feed, where, being freed from the fear of hounds, and for want of hearing, they grow fat before others of their kind.

Hare Hunting.

It is generally believed that a hare naturally knows the change of weather, from one twenty-four hours to another.

When ſhe goes to her form, ſhe will ſuffer the dew to

to touch her as little as ſhe can, but takes the highways and beaten paths: again, when ſhe riſes out of her form, if ſhe couches her ears and ſcut, and runs not very faſt at firſt, it is an infallible ſign that ſhe is old and crafty.

They go to buck commonly in *January*, *February*, and *March*, and ſometimes all the warm months: ſometimes ſeeking the buck at ſeven or eight miles diſtant from the place they uſually ſit at, following the highways, *&c.*

To diſtinguiſh a male hare from the female, you may know him as you hunt him to his form, by his beating the hard highways: he alſo feeds further out in the plains, and makes his doublings and croſſings much wider, and of greater compaſs than the female doth; whereas the female will keep cloſe by ſome covert ſide, turning and winding in the buſhes like a coney; and if ſhe go to relief in the corn fields, ſhe ſeldom croſſes over the furrows, but follows them along, ſtaying upon the thickeſt tufts of corn to feed.

You may likewiſe know a buck at his riſing out of his form, by his hinder parts, which are more upon the whitiſh, and his ſhoulders, before he riſes will be redder than the doe's, having ſome looſe long hairs growing on them.

Again, his head is ſhorter and better truſſed, his hair about his lips longer, and his ears ſhorter and more grey: the hairs upon the female's chine are of a blackiſh grey.

And beſides, when hounds hunt a female hare, ſhe will uſe more croſſing and doubling, ſeldom making out end-ways before the hounds; whereas the male acts contrarily, for having once made a turn or two about his form, then farewell hounds, for he will frequently lead them five or ſix miles before ever he will turn his head.

When you ſee that your hounds have found where a hare hath paſſed to relief upon the highway-ſide, and hath much doubled and croſſed upon dry places, and never much broken out nor relieved in the corn, it is a ſign ſhe is but lately come thither: and then commonly ſhe will ſtay upon ſome high place to look about her, and to chuſe out a place to form in, which ſhe will be loath to part with. As of all chaſes the hare makes the greateſt paſtime and pleaſure, ſo it is a great delight and ſatisfaction to ſee the craft of this ſmall animal for her ſelf-preſervation.

And the better to underſtand them, conſider what weather it is: if it be rainy, then the hare will hold the highways more than at any other time, and if ſhe come to the ſide of any young grove or ſpring, ſhe will ſcarcely enter, but ſquat down by the ſide of it till the hounds have over-ſhot her, and then ſhe will return, the very ſame way ſhe came, to the place from whence ſhe was ſtarted, and will not go by the way into any covert, for fear of the wet and dew that hangs upon the boughs.

In this caſe the huntſman ought to ſtay a hundred paces before he comes to the wood ſide, by which means he will perceive whether ſhe return as aforeſaid, which if ſhe do, he muſt halloo in his hounds, and call them back, and that preſently, that the hounds may not think it the counter ſhe came firſt.

The next thing that is to be obſerved is, the place where the hare ſits, and upon what wind ſhe makes her form, either upon the north or ſouth wind; ſhe will not willingly run into the wind, but upon a ſide, or down the wind; but if ſhe form in the water it is a ſign ſhe is foul and meaſled: if you hunt ſuch a one, have a ſpecial regard all the day to the brook-ſides, for there, and near plaſhes, ſhe will make all her croſſings, doublings, &c.

Some hares have been ſo crafty, that as ſoon as they have heard the ſound of a horn, they would inſtantly ſtart out of their form, though it was at the diſtance of a quarter of a mile, and go and ſwim in ſome pool, and reſt upon ſome ruſh-bed in the midſt of it; and would not ſtir from thence till they have heard the horn again, and then have ſtarted out again, ſwimming to land, and have ſtood up before the hounds four hours before they could kill them, ſwimming and uſing all ſubtleties and croſſings in the water.

Nay, ſuch is the natural craft and ſubtlety of a hare, that ſometimes, after ſhe has been hunted three hours, ſhe will ſtart a freſh hare, and ſquat in the ſame form.

Others having been hunted a conſiderable time, will creep under the door of a ſheep-cot, and there hide themſelves among the ſheep; or when they have been hard hunted, will run in among a flock of ſheep, and will by no means be gotten out from among them till the hounds are coupled up and the ſheep driven into their pens.

Some of them (and that ſeems ſomewhat ſtrange) will take the ground like a coney, and that is called going to the vault.

Some hares will go up one ſide of the hedge and come down the other, the thickneſs of the hedge being the only diſtance between the courſes.

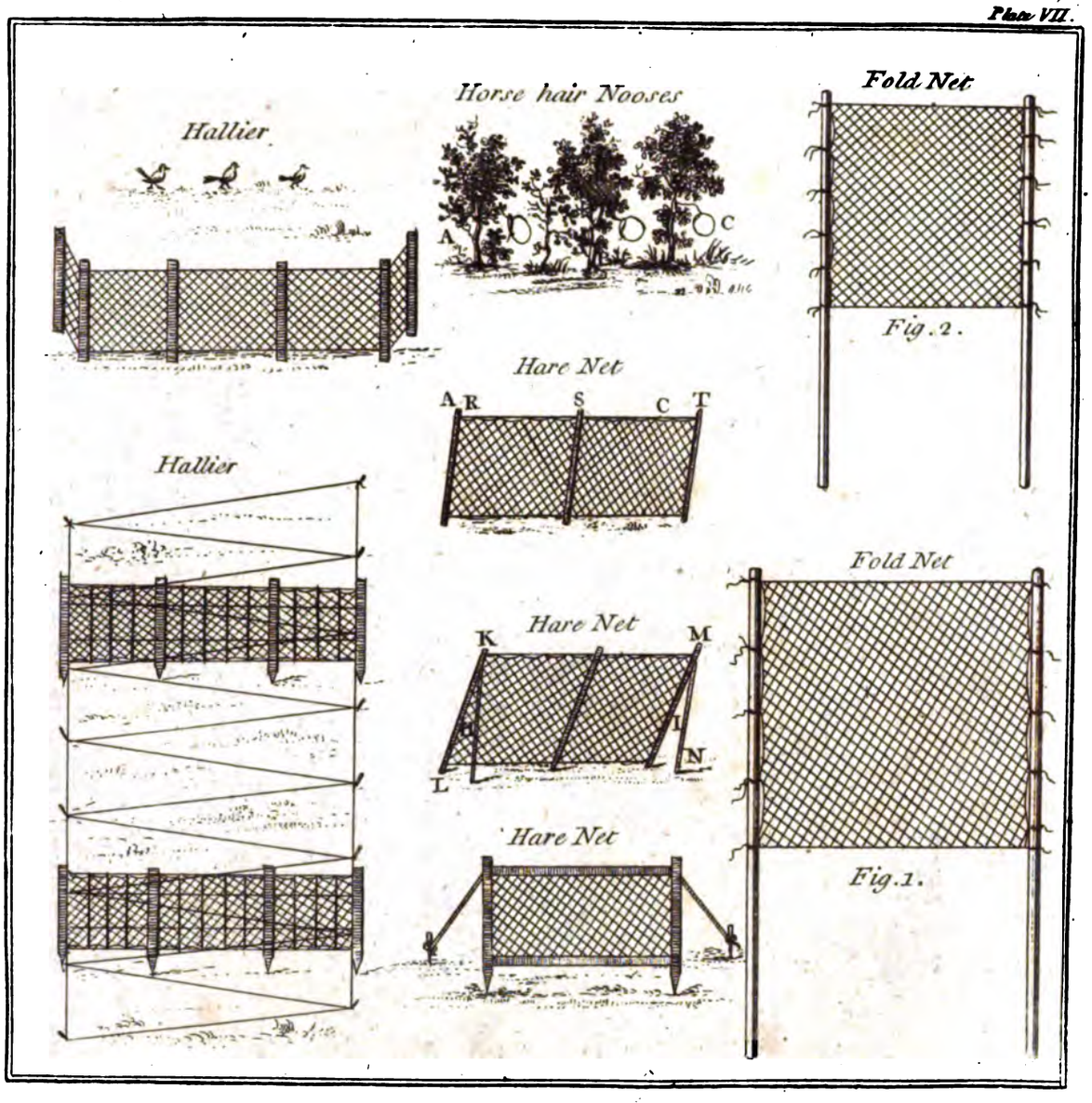
A hare that has been cloſely hunted, has got upon a quick-ſet hedge, and ran a good way upon the top thereof, and then leaped off upon the ground.

And they will frequently betake themſelves to furze-buſhes, and will leap from one to the other, whereby the hounds are frequently in default.

Some affirm, that a hare, after ſhe has been hunted two hours and more, has at length, to ſave herſelf, got upon an old wall, ſix feet high from the ground, and hid herſelf in a hole that was made for ſcaffolding; and that ſome hares have ſwam over the rivers *Trent* and *Severn*.

A hare is ſuppoſed not to live above ſeven years at the moſt, eſpecially the bucks, and if a buck and doe ſhall keep one quarter together, they will never ſuffer any ſtrange hare to ſit by them, and therefore it is ſaid by way of proverb, the more you hunt, the more hares you ſhall have; becauſe when you have killed one hare, another will come and poſſeſs his form.

A hare hath a greater ſcent, and is more eagerly hunted by the hounds, when ſhe feeds and relieves upon green corn, than at any other time of the year; and yet there are ſome hares that naturally give a greater ſcent than


Hallier
Horse hair Nooses
A
C
Fold Net
Fig. 2.
Hare Net
A R S C T
Hallier
Hare Net
K M
I
N
L
Fold Net
Hare Net
Fig. 1.

than others, as the large wood-hares; and ſuch as are foul and meaſled keep near the waters: but the ſmall red hare, which is not much bigger than a coney, is neither of ſo ſtrong a ſcent, nor ſo eagerly hunted.

Theſe hares that feed upon the ſmall branches of wild thyme, or ſuch like herbs, are generally very ſwift, and will ſtand long up before the hounds.

Again, there are ſome hares more ſubtle and cunning than others: young hares which have never been hunted are foolith, and are neither of force nor capacity to uſe ſuch ſubtleties and crafts, but moſt commonly hold on end-ways before the hounds, and oftentimes ſquat and ſtart again, which greatly encourages the hounds, and enters them better than if the hare ſhould fly end-ways, as ſometimes they will for five or ſix miles an end.

The females are more crafty and politic than the males, for they double and turn ſhorter, which is unpleaſant to the hounds; for it is troubleſome to them to turn ſo often, delighting more in an end-way chaſe, running with all their force: for thoſe hares which double and croſs ſo often, it is requiſite at default, to caſt the greater compaſs about, when you beat, to make it out, for ſo you will find all her ſubtleties, and yet need not ſtick upon any of them, but only where ſhe went on forward; by this means you will abate her force, and compel her to uſe doublings and croſſings.

To enter hounds to a hare. let the huntſman be ſure in the firſt place to make them very well acquainted with himſelf and his voice, and let them underſtand the horn, which he ſhould never blow but when there is cauſe for it.

When you enter a young kennel of hounds. have a ſpecial regard to the country where you make the firſt quarry, for ſo they are like to ſucceed accordingly; ſince their being entered firſt in a plain and champagne country, will make them ever after delight more to hunt therein than elſewhere; and it is the ſame with the coverts.

In order to have the beſt hounds, uſe them to all kinds of hunting, yet do not oblige them to hunt in the morning, by reaſon of the dew and moiſture of the earth; and beſides, if they be afterwards hunted in the heat of the day, they will ſoon give over the chaſe, neither will they call on willingly nor chearfully, but ſeek out the ſhades to ſleep in.

But yet many are of opinion, that to hunt both early and late in the morning, by trayling, profits the hounds as to the uſe of their noſes; and by keeping them ſometimes in the heat of the day, or till night, incites courage in them.

The beſt ſeaſon to enter young hounds, is in *September* and *October*, for then the weather is temperate. and neither too hot nor too cold; and this is the ſeaſon to find young hares that have never been hunted, which are ſilly and ignorant of the politic croſſings, doublings, &c. of their ſires, running commonly end-ways, frequently ſquatting, and as often ſtarting; by which encouragement the hounds are the better entered.

Some hares hold the high-beaten ways only, where the hounds can have no ſcent; therefore, when the huntſman finds his hounds at a default in the highway, let him hunt on until he finds where the hare hath broken from the highway, or hath found ſome dale or freſh place where the hounds may recover ſcent, looking narrowly on the ground as he goes, to ſee to find the footing or pricking of the hare.

There are other places wherein a hound can find no ſcent; and that is, in fat and rotten ground, which ſticks to the feet of the hare; and this is called carrying, and ſo of conſequence ſhe leaves no ſcent behind her.

There are alſo certain months in the year in which a hound can find no ſcent, and that is in the ſpring time, by reaſon of the fragrant ſcent of flowers and the like.

But avoid hunting in hard froſty weather as much as you can, for that will be apt to ſurbate or founder your hounds, and cauſe them to loſe their claws; beſides, at that time a hare runs better than at ony other time, the ſoles of their feet being hairy.

In a word, the beſt way of entering young hounds, is with the aſſiſtance of old ſtaunch hounds, ſo they will be better learned to caſt for it at a doubling or default.

What time of the year is beſt for Hare-hunting; how to find her, ſtart her, and chaſe her.

The beſt time to begin hare-hunting, is about the middle of *September*, and to end towards the latter end of *February*, leſt you deſtroy the early brood of leverets.

And beſides when the winter comes on, the moiſtneſs and coolneſs of the earth increaſes, which is agreeable to the natnre of the hounds, and very acceptable, they not liking extremes either of hot or cold weather.

Thoſe hounds that are two years old and upwards, may be exerciſed three times a week; and the hunting ſo often will do them good, provided they will be fed; and they may be kept the greateſt part of the day, both to try their ſtoutneſs, and to make them ſtout.

If any hound ſhall have found the trayl of a hare, when ſhe hath relieved that night, the huntſman ought not to be too haſty, but let the hounds make it of themſelves: and when he perceives that they begin to draw in together, and to call on freſhly, then he ought to encourage them, eſpecially that hound which hunteth beſt, frequently calling him by his name.

Here you may take notice that a hare leaveth better ſcent when ſhe goes to relief, than when ſhe goeth toward her form; for when ſhe relieves in the field, ſhe coucheth her body low upon the ground, paſſing often over one piece of ground, to find where the beſt food lies, and thus leaveth the beſt ſcent, croſſing alſo ſometimes: beſides, when ſhe goes to her form, ſhe commonly takes the highways, doubling, croſſing, and leaping as lightly as ſhe can; in which places the hounds can have no ſcent by reaſon of the duſt, &c. and yet they will ſquat by the ſides of highways. and therefore let the huntſman beat very well the ſides of thoſe highways.

Now having found where a hare hath relieved in

ſome paſture or corn-field, you muſt then conſider the ſeaſon of the year, and what weather it is: for if it be in the ſpring time or ſummer, a hare will not then ſit in buſhes, becauſe they are frequently infeſted with piſmires, ſnakes and adders; but will ſit in corn-fields and open places.

In the winter time, they ſit near towns and villages, in tufts of thorns and brambles, eſpecially when the wind is northerly or ſoutherly.

According to the ſeaſon and nature of the place where the hare is accuſtomed to ſit, there beat with your hounds, and ſtart her; which is much better ſport than trayling of her from her relief to her form.

After the hare has been ſtarted, and is on foot, then ſtep in where you ſaw her paſs, and halloo in your hounds, until they have all undertaken it, and go on with it in full cry; then recheat to them with your horn, following fair and ſoftly at firſt, making not too much noiſe either with horn or voice; for at the firſt, hounds are apt to overſhoot the chaſe through too much heat.

But when they have run a ſpace of an hour, and you ſee the hounds are well in with it, and ſtick well upon it, then you may come in nearer with the hounds, becauſe by that time their heat will be cooled, and they will hunt more ſoberly.

But, above all things, mark the firſt doubling, which muſt be your direction for the whole day; for all the doubling that ſhe ſhall make afterwards will be like the former, and according to the policies that you ſhall ſee her uſe, and the place where you hunt, you muſt make your compaſſes great or little, long or ſhort, to help the defaults, always ſeeking the moiſteſt and moſt commodious places for the hounds to ſcent in.

To conclude; thoſe who delight in hunting the hare, muſt riſe early, leſt they be deprived of the ſcent of her footſteps, by which means the dogs will be incapacitated to follow their game; for the nature of the ſcent is ſuch that it will not remain long, but ſuddenly, in a manner every hour, vaniſhes away. *See* HUNTING.

HARE-NETS AND RABBET-NETS. The three ſeveral ſorts of nets repreſented in Plate VIII, are proper either for hares or rabbets.

In the placing of theſe obſerve the path or tract in any coppice, or furrow, by which any hare uſes to paſs; likewiſe how the wind is, ſo as to ſet them as the hare and wind may come together: if the wind be ſide-ways it will do well enough, but never let it blow over the net into the hare's face, for he will ſcent both it and you at a diſtance; the two pointed lines A C, in the firſt figure, denote the foot-paths whereby the game uſes to paſs. Then prepare three or four more ſtakes according to the length of the net; which ſtakes ſhould be about the bigneſs of one's thumb, and near four feet long, ſharpened at the greater end, and a little crooked at the ſmaller R, S, T; ſtick them in the ground ſomewhat ſloping, as if ſo forced by the wind: two of them are to be ſet at the two ſides of the way and the middle, as there is occaſion; they muſt only hold up the net from falling, but in a very ſlight manner, that if the game run againſt it, it may fall down, and ſo entangle him: be ſure to hide yourſelf in ſome ditch or buſh, behind a tree, or the like place, behind the net, then when you perceive the game to be paſſed give a ſhout, flinging your hat at them, which will put them into ſuch a ſurprize that they will ſpring on, and run juſt into the net, ſo that you muſt be nimble to take them, leſt they break out and eſcape.

But obſerve, this net is not ſo grounded in windy weather as in fair.

The middlemoſt flap muſt be ſet much after the ſame manner as the former; as to the way and wind, you ſee how the two cords at each end of the net ought to be diſpoſed: next you muſt have two ſticks, K, L, M, N, each four feet long and twice as thick as one's thumb, which are to be cut exactly ſmooth at each end and fixed thus, take the ſtick H, I, put it on the edge of the way upon the cord L, which is on the bottom of the net, and the other cord is to be placed at the top of the ſtick; then go along behind the net, ſupporting it with your hand, and place your ſecond ſtick juſt as you did the firſt; but you ſhould endeavour to lean a little towards the way where you expect the game will come, for the beaſt's running fiercely againſt the net will force the ſticks to give way, and ſo the net falls on him.

There is another net repreſented by the laſt figure, which is leſs troubleſome than either of the former, only it may be farther diſcerned, yet it is good for rabbets in ſuch foot-paths, and only uſed for them and hares; whereas the others are uſeful alſo for the taking of wolves, foxes, badgers, and pole cats. The true time to ſet theſe nets is at break of day, till half an hour before ſun-riſing, and from half an hour before ſun-ſet till dark.

HARNESS GALLS; ſometimes the breaſts of coach-horſes are galled by the harneſs, or riſe in hard bunches, eſpecially in rainy weather.

To cure this, firſt ſhave off the hair about the ſore very cloſe, and rub the whole breaſt with a lather of water and black ſoap; then waſh that part of the breaſt which is uſually covered with the petrel, with ſalt, and water, ſuffering it to dry off itſelf.

If the hardneſs of any part of the harneſs occaſions the galling, take it away, or cover it with little bolſters.

HARRIER; a hound, which from his chaſing or tracing by foot, is naturally endued with an admirable gift of ſmelling, being alſo bold and courageous in the purſuit of his game, of which there are ſeveral kinds, and all differ in their ſervices; ſome are for the hare, the fox, wolf, hart, pole-cat, weaſel, coney, buck, badger, otter, *&c.* ſome for one thing, ſome for another.

The hound moſt in uſe and proper for hare-hunting, may be confined to few ſorts and each excellent in nature. To wit, the deep-tongued, thick-lipped, broad and long-hung ſouthern hounds. The fleet ſharp noſed dog, ears narrow and pointed, deep cheſted, with thin ſhoulders, pretending a quarter of the fox ſtrain. The rough

rough wire-haired hound, thick-quartered, well hung, not too fleshy shouldered, together with the rough or smooth beagle. Each of these sorts, have their excellencies, *&c.* It is not possible, with justice, to commend one before another, for kind, colour or service, preference being given according to the humours and inclinations of sportsmen, the tribe of whom are very numerous, and, of consequence, different in opinion.

He that delights in a long chase of six hours, often more, and to be in with the dogs all the time, let him breed of the southern hounds, or such heavy dogs as *Suffex* gentlemen run in the weald. They make good deep bass music, afford great diversion, and considering how dirty the country is, fatigue the healthy footmen very little. In an open country where there is good riding, prefer the second sort, with a quarter of the fox-strain, these suit the more eager, active horseman, and spend their tongues generously, making delightful harmony, and at the same time go at such a rate, a hare durst not play many tricks before them; they seldom allow her time to loiter, she must run and continue her foiling or change soil, if the latter she dies; keep in huntsman, fresh ground on the turf, is in some degree a continued view, otherwise hang your dogs (barring all extraordinary accidents of highways and sheep blemish) for I would no more excuse the loss of a hare on fresh sward, unless the huntsman's fault, which is too often the case, than I would a kennel of fox-hounds losing reynard in full chase; the reasons against it in both diversions are the same.

The slow hounds generally pack best. Of the second sort, many not being of equal speed (for it is hard to procure an even kennel of fast hounds) will be found to tail, which is an inconveniency, for the hind dogs labour on to overtake the leading hounds, and seldom or ever stop, nor are of the least use but to enlarge the cry, unless at an over-run, which happens at the top of the morn, for a quarter of a mile together, then the old hounds, thrown out or tailed, often come up, and hit the fault off. The southern dogs are not so guilty of running a-head, for as they pack well together, from their equality of speed (it being easier to excel the slow than the fast) at the least balk, there are ten noses on the ground for one. The third species of hound you will seldom see an entire kennel of, being in some parts not much encouraged: They are of northern breed, and in great esteem, being bold dogs, and by many huntsmen preferred for the otter and martin: in some places they are encouraged for fox hounds, but bad to breed from, being too subject to degenerate and produce thick, low, heavy shouldered dogs unfit for the chase. Beagles, rough or smooth, have their admirers, they spend their tongues free in treble or tenor, and go a greater rate than the southern hounds, but tail abominably. They run low to ground, therefore enjoy the scent better than taller dogs, especially when the atmosphere lies low. In an enclosed country they do best, as they muse with the hare, and at trailing or default, are pretty good for hedge-rows.

Of the two sorts the rough, or wire-haired, being generally good shouldered dogs, and well filleted, are preferred.

Smooth-haired beagles are commonly deep-hung, thick-lipped, and large nostrilled, but often so soft, solid, and bad quartered, as to be shoulder-shook and crippled the first season's hunt, and have frequently that unpardonable fault of crooked legs, like the terrier, or right Bath turn-spit.

Few of them will endure a tolerable hunt, or at default bear hard charging. After two hours running, observe them crippled and down, the huntsman may go on himself, for what assistance many of them give him, and it is plain from their form and shape, that they are not designed for hard exercise.

So much for harriers, a deal may be said for and against the several kinds: it is a wide unsettled point to give opinion upon; but to sum up the whole in a few words, staunch, true hounds of any sort, are desirable, and whoever has them of pretty equal age and speed, with the requisites of packing and hunting well together, whether southern, northern, fox-strain, or beagle, can boast an invaluable advantage in the diversion, and which few gentlemen, let them breed ever so true, can attain to but in years.

The properties to be considered in the choice of a hound, are, to prefer the dog of a middling size, with his back longer than round, nose large, with nostrils bold and wide, chest deep and capacious, fillets great and high, haunches large, hams straight, the sole hard and dry, claws large, ears wide, thin and deep, more round than sharp, eyes large and protuberant, forehead prominent, and upper lips thick, and deeper than the lower jaw.

HART, is the most noble and stately beast, and in the first year is called a hind-calf, in the second a knobber, in the third a brock, in the fourth a staggard, in the fifth a stag, and in the sixth a hart. *See* STAG.

Harts are bred in most countries, but the ancients preferred those of *Britain* before all others, where they are of divers colours.

These excel all others in the beauty of their horns, which are very high, yet do not grow to their bones or scalps, but to their skin, branching forth into many spears, being solid throughout, and as hard as stones, and fall off once a year.

But if they remain abroad in the air, and are sometimes wet and sometimes dry, they grow light; by which it would seem they are of an earthy substance, concrete, and hardened with a strong heat, made like unto bones.

They lose their horns every year in the spring.

At one year old they have nothing but bunches, that are small significators of horns to come: at two years they appear more perfectly, but straight and single: at three years they grow into two spars; at four into three, and so increase every year in their branches till they are six; and above that time their age is not certainly to be known by the head.

Having lost their horns, in the day-time they hide themselves, inhabiting the shades to avoid the annoy-

ance of flies, and feed, during that time, only in the night.

Their new horns come out at first like bunches, and afterwards (as has been said before) by the increase of the sun's heat they grow more hard, covered with a rough skin, which is called a velvet head; and as that skin drieth, they daily try the strength of their new heads upon trees, which not only scrapeth off the roughness, but by the pain they feel thus rubbing, they are taught how long to forbear the company of their fellows; for at last, when in their chafing and fretting of their new horns against the trees, they can feel no longer pain and smart in them, they seem as if they thought it were high time to forsake their solitary dwellings, and return again to their former condition.

The reason why harts and deers shed their horns annually are these:

First, because of the matter of which they consist; for it is dry and earthy like the substance of green leaves, which also fall annually; likewise wanting glewy or holding moisture, for which reason the horn of a hart cannot be bent.

Secondly, from the place they grow up on, for they are not rooted upon the skull, but only within the skin.

Thirdly, from the efficient cause; for they are hardened both with the heat of summer and cold of winter; by means of which the pores which should receive the nourishing liquor are shut up and stopped, so that their native heat necessarily dieth; which does not so happen in other beasts, whose horns are for the most part hollow and fitted for long continuance; but the new bunches swelling up, towards the spring, thrust off the old horns, having the assistance of boughs of trees, weight of the horns, or by the willing excursion of the beast that beareth them.

It has been observed, that when a hart pricketh up his ears, he windeth sharp, very far and sure, and discovereth all treachery against him; but if they hang down and wag, he perceives no danger.

Their age is discerned by their teeth; they have four on both sides, with which they grind their meat; besides two others, which are much larger in the male than in the female.

All these beasts have worms in their heads underneath their tongues, in a hollow place where the neck-bone is joined to the head, which are no bigger than fly-blows.

The blood of the hart is not like that of other beasts, for it hath no fibres in it, and therefore it does not congeal.

His heart is very great, and so are all those of fearful beasts, having in it a bone like a cross.

He hath no gall, and that is one of the causes of his long life, and therefore are his bowels so bitter, that the dogs will not touch them unless they be very fat.

The genital part of a hart is all nervous; the tail small; and a hind hath udders between her thighs, with four speans like a cow.

These are above all other beasts both ingenious and fearful, who although they have large horns, yet their defence against other four-footed beasts is to run away.

The hart is strangely amazed, when he hears any one call or whistle in his fist: for trial of which, some seeing a hart in the plain in motion, having called him, crying ware, ware, take heed; and thereupon have seen him instantly turn back, making some little stand.

He hears very perfectly when his head and ears are erected; but imperfectly when he lets them down.

When he is on foot, and not afraid, he admires every thing he sees, and takes a pleasure to gaze at them.

A hart can naturally swim a great way, so that some which have been hunted in forests near the sea, have plunged into it, and have been killed by fishermen twelve miles from land.

It is reported of them, that when they go to rut, and for that purpose are obliged to cross some great river or arm of the sea, they assemble in great herds, the strongest going in first, and the next in strength following him, and so one after the other, relieving themselves by resting their heads on the buttocks of each other.

The hind commonly carries her calf eight or nine months, which usually falls in *May*, although some alter: some of them have two at once, and eat up the skin wherein the calf did lie.

As the calf grows up, she teaches it to run, leap, and the way it must take to defend itself from the hounds.

Harts and hinds are very long lived, living commonly a hundred years and upwards.

Hart-Hunting.

Gesner, speaking of the hunting of the hart, says, 'This wild, deceitful, and subtle beast, by windings and turnings often deceives its hunter, as the harts of *Meandros* flying from the terrible cry of *Diana's* hounds:' wherefore the prudent hunter must frame his dogs, as *Pythagoras* did his scholars, with words of art to set them on, and take them off again at his pleasure.

Whereof he must first of all encompass the beast in her own layer, and so unharbour her in the view of the dogs, that they may never lose her slot or footing.

Neither must he set upon every one, either of the herd, or those that wander solitary alone, or a little one, but partly by sight, and partly by their footing and fumet, make a judgment of the game, and also observe the largeness of his layer.

The huntsman, having made these discoveries in order to the chase, takes off the coupling of the dogs, and some on horseback, the others on foot, follow the cry, with the greatest art, observation, and speed, remembering and intercepting him in his subtle turnings and headings; with all agility leaping hedges, gates, pales, ditches; neither fearing thorns, down hills, nor woods, but mounting a fresh horse, if the first tire; follow the largest head of the whole herd, which must be singled out

out of the chase; which the dogs perceiving, must follow; not following any other.

The dogs are animated to the sport by the winding of horns, and the voices of the huntsmen.

But sometimes the crafty beast sends forth his little squire to be sacrificed to the dogs and hunters, instead of himself, lying close the mean time. In this case, the huntsman must sound a retreat, break off the dogs, and take in, that is, leam them again, until they be brought to the fairer game; which riseth with fear, yet still striveth by flight, until he be wearied and breathless.

The Nobles call the beast a wise hart, who, to avoid all his enemies, runneth into the greatest herds, and so brings a cloud of error on the dogs, to obstruct their farther pursuit; sometimes also beating some of the herd unto his footings, that so he may the more easily escape, by amusing the dogs.

Afterwards he betakes himself to his heels again, still running with the wind, not only for the sake of refreshment, but also because by that means he can the more easily hear the voice of his pursuers, whether they be far from him, or near to him.

But at last being again discovered by the hunters, and sagacious scent of the dogs, he flies into the herds of cattle, as cows, sheep, &c. leaping on a cow or ox, laying the fore parts of his body thereon, that so touching the earth only with his hinder feet, he may leave a very small or no scent at all behind for the hounds to discern.

A chief huntsman to LEWIS XII. of *France*, affirms, 'That on a time, they having a hart in chase, on a sudden the hounds were at a fault, so as the game was out of sight, that not a dog would once stir his foot, at which the hunters were all amazed; at last, by casting their eyes about, they discovered the fraud of the crafty beast.

There was a great white-thorn, which grew in a shady place, as high as a moderate tree, which was encompassed about with other smaller shrubs; into this the hart having leaped, stood there aloft, the boughs spreading from one to another, and there remained till he was thrust through by the huntsman, rather than he would yield himself up a prey to the hounds his mortal enemies.'

But their usual manner is, when they see themselves hard beset, and every way intercepted, to make force at their enemy with their horns, who first comes upon him, unless they be prevented by spear or sword.

When the beast is slain, the huntsman with his horn windeth the fall of the beast; and then the whole company comes up, blowing their horns in triumph for such a conquest; among whom, the skilfullest opens the beast, rewards the hounds with what properly belongs to them, for their future encouragement: for which purpose the huntsmen dip bread in the blood of the beast to give to the hounds.

The rutting time is the middle of *September*, and continues two months: the older they are the hotter, and the better they please the hinds, and therefore they go to rut before the young ones; and being very fiery, they will not suffer any of them to come near the hinds, till they have satisfied their venereal appetite.

But for all this, the young ones are even with the old, for when they perceive that the old are grown weak by excess of rutting, the young will frequently attack them, and make them quit the place, that they may be masters of the sport.

They may be easily killed in rutting-time, for they follow the scents of the hinds with so much eagerness, laying their noses to the ground, that they mind that only and nothing else.

It is very dangerous for any man to come near them at that time, for then they will make at any living creature of a different kind.

In some places their lust arises in *October*, and also in *May*; and then (whereas at other times the males live apart from the females) they go about like lascivious lovers, seeking the company of the females.

The males, in their raging lust, make a peculiar noise.

One male will cover many females, continuing in this appetite for one or two months.

The females seem chaste, and unwilling to admit of copulation by reason of the rigour of the genital of the male; and therefore they sink down on their buttocks, when they begin to feel his semen, as it has been observed in tame harts; and if they can, the females run away, the males striving to hold them back with their fore-feet.

It cannot be well said, that they are covered standing, lying, or going, but rather running; so are they filled with greatest severity.

When one month or six weeks is over of their rutting, they grow much tamer; and laying aside all fierceness, they return to their solitary places, digging every one by himself a several hole or ditch, in which they lie, to assuage the strong savour of their lust; for they stink like goats, and their face begins to look blacker than at other times: and in those places they live till some showers of rain fall; after which they return to the pasture again, living in flocks as they did before.

The female having been thus filled, never associate again with the male till she is delivered of her burthen, which is in about eight months, and produces generally but one at a time, very seldom two; which she lodges cunningly in some covert. If she perceive them stubborn and wild, she will beat them with her feet till they lie close and quiet.

She oftentimes leadeth forth her young, teaching it to run, and leap over bushes, stones, and small shrubs, and so continueth all the summer long, while their own strength is the most considerable.

It is very pleasant to observe them, when they go to rut, and make their vault; for when they smell the hind, they raise their nose up into the air; and if it be a great hart, he will turn his head and look about to see whether there be any near him to interrupt and spoil his sport.

Upon this, the young fly away for fear; but if there be any of equal bigness, they then strive which shall vault

vault first; and in the opposing each other, they scrape the ground with their feet, shocking and butting each other so furiously, that you may hear the noise they make with their horns, half a mile, so long till one of them is the conqueror.

The hind beholding this encounter, never stirs from her station, expecting, as it were, the vaulting of him who shall get the mastery, who having got it, bellows, and then instantly covers her. The coats or colours of harts are of three different sorts, brown, red, and fallow; and of each of these coats there proceeds two sorts of harts, the one great, and the other small.

Of brown harts, there are some great, long, and hairy, bearing a high head, of a red colour, and well beamed, who will stand before hounds very long, being longer of breath, and swifter of foot than those of a shorter stature.

There is another sort of brown harts, which are little, short and well-set, bearing commonly a black mane, and are fatter and better venison than the former, by reason of their better feeding in young coppices.

They are very crafty, especially when in grease, and will be hardly found, because they know they are most inquired after; besides, they are sensible they cannot then stand long before the hounds.

If they be old, and feed on good ground, then are their heads black, fair, and well branched, and commonly palmed at the top.

The fallow harts bear their heads high, and of a whitish colour, their beams small, their antlers long, slender and ill grown; having neither heart, courage, nor force.

But those which are of a lively red fallow, having a black or brown list down the ridge of the back, are strong, bearing fair and high heads, well furnished and beamed. As there are several sorts of harts, so also have they different heads, according to their age, country, rest, and feeding.

Here you must take notice, that they bear not their first head (which we call broches, and in a fallow deer pricks) until they enter the second year of their age.

In the third year they bear four, six, or eight, small branches: at the fourth, they bear eight or ten: at the fifth ten or twelve: at six, fourteen or sixteen: and at the seventh year, they bear their heads beamed, branched and summed, with as much as ever they will bear, and do never multiply, but in greatness only. An old hart casteth his head sooner than the young, and the time is about the months of *February* and *March*.

Note, that if you geld a hart before he hath a head, he will never bear any; and if you geld him when he has a head, he will never after mew and cast it: and so if he be gelded when he hath a velvet head, it will ever be so, without fraying or burnishing.

As soon as they have cast their heads, they instantly withdraw into the thickets, hiding themselves in such convenient places where they can have good water and strong feeding, near some ground where wheat and peas are sown: but young harts do never betake themselves to the thickets till they have borne their third head, which is the fourth year.

After they have mewed, they will begin to button in *March* and *April*; and as the sun grows strong, and the season of the year puts forward the crop of the earth, so will their heads increase in all respects; so that by the middle of *June*, their heads will be summed as much as they will bear all the year.

The Names and Diversity of Heads, according to the Terms used by Hunters.

That part which bears the antlers, royals, and tops, is called the beam, and the little streaks therein are called gutters.

That which is about the crust of the beam is termed pearls, and that which is about the bur itself, formed like little pearls, is called pearls bigger than the rest.

The bur is the next head, and that which is about the bur is called pearls; the first is called antler, the second sur-antler: all the rest which grow afterwards, until you come to the crown, palm, or croche, are called royals and sur-royals; the little buds or broches about the top, are called croches.

Their heads also go by several names; the first head is called a crowned top, because the croches are ranged in form of a crown.

The second is called a palmed top, because the croches are formed like a man's hand.

Thirdly, all heads which bear not above three or four, the croches being placed aloft, all of one height, in form of a cluster of nuts, are to be called heads of so many croches.

Fourthly, all heads which bear two in the top, or having their croches doubling, are to be called forked heads.

Fifthly, all heads which have double burs, or the antlers royals, and croches turned downwards, contrary to other heads, are only called heads. *See* HUNTING.

How to know an old Hart by the Slot, Entries, Abatures, Foils, Fewmets, Gait and Walks, Fraying-stocks, Head and Branches.

First, by the slot. You must take good notice of the treading of the hart's foot; if you find the treading of two, the one long, and the other round, yet both of one bigness, yet the long slot will indicate the hart to be much larger than the round.

And besides, the old hart's hind-foot doth never over-reach the fore-foot; that of the young ones do.

But above all take this observation: when you have found the slot of a hart in the wood, take notice what manner of footing it is, whether worn or sharp; and accordingly observe the country, and judge by that whether either may be occasioned thereby.

For harts bred in mountains and stony countries, have their toes and sides of their feet worn, by means of

of their continual climbing and resting themselves thereon, and not on the heel; whereas in other places they stay themselves more on the heel than toes; for in soft or sandy ground they slip upon the heel, by reason of their weight, and thus by frequently staying themselves thereon, it makes the heel grow broader and bigger.

And thus may the age of a hart be known by his slot or treading.

The next thing to be considered is the fewmets; and this is to be judged of in *April* and *May*. If the fewmets or fewmishing be large and thick, they intimate that the hart is old.

In the months of *June* and *July* they make their fewmets in large croteys, very soft; and from that time to the end of *August*, they make them large, long, knotty and anointed, and gilded, letting them fall but few and scattered.

In *September* and *October*, there is no longer passing a judgment by them, by reason of the rut.

Thirdly, in order to know the height and thickness of a hart, observe his entries and galleries into the thickets, and what boughs he has over-stridden, and mark from thence the height of his belly from the ground.

By the height of the entries, a judgment is made of the age of a hart; for a young deer usually creeps, but the old ones are stiff and stately.

His largeness may be known by the height of his creeping as he passes to his harbour, the young deer creeping low, which the old will not stoop to.

Fourthly, take notice of his gait, by which you may know whether the hart be great and long, and whether he will stand long before the hounds or not; for all harts which have a long step will stand up a long while, being swift, light and well breathed; but if he leave a great slot, which is the sign of an old deer, he will never stand long when he is chased.

Lastly, take notice of his fraying-post; where observe, that by how much the hart is the older, the sooner he goes to fray, and the larger is the tree he chuses to fray against, and one so strong that he cannot bend with his head.

All stags as they are furnished, beat their heads dry against some tree or other, which is called their fraying-post; the younger deer do it against weaker, lesser, and lower trees; so that accordingly hunters judge confidently of their age, and of the nearness of their harbour, for that is the last action or ceremony they use before they enter it.

As to the head and branches, a hart is old, first, when the compass of the bur is large, great and well pearled.

Secondly, when the beam is large burthened and well pearled, being straight, and not rendered crooked by antlers.

Thirdly, when the gutters in it are large and deep.

Fourthly, when the first antler, called antellier, is large, long, and near to the bur, the sur-antler near to the antler; and they ought to be both well pearled.

Fifthly, the rest of the branches which are higher being well ordered and set, and well grown, according to the largeness and proportion of the head, and the croches, palm, or crown, being great and large too, according to the largeness of the beam, are signs of an old hart.

How to seek a Hart in his Haunts, and feeding-places, according to the Seasons of the Year.

All harts change their manner of feeding every month; and as *November* is the conclusion of their rutting-time, I shall begin with that month: in this they feed in heaths and broomy places.

In *December* they herd together, and withdraw themselves into the strengths of the forests, to shelter themselves from the cold winds, snows and frosts, and feed on the holm trees, elder trees, brambles or any green thing they can find; and if it snows, they will skin or peel the trees like a goat.

In *January*, *February*, and *March*, they leave herding, but will keep four or five in company, and in the corners of the forest will feed on the winter-pasture, sometimes making their incursions into the neighbouring corn-fields, if they can perceive the blades of wheat, rye, or the like, appear above ground.

In *April* and *May*, they rest in their thickets and other bushy and shady places, during that season, and stir very little till rutting-time, unless they are disturbed.

There are some harts so cunning, that they will have two several layers to harbour in, a good distance one from the other, and will frequently change (for their greater security) from the one to the other, taking still the benefit of the wind.

In these months they go not to the soil, by reason of the moisture of the spring, and the dew that continually overspreads the grass.

In *June*, *July*, and *August*, they are in the pride of their grease, and do resort to spring-coppices and corn-fields, only they seldom go where rye or barley grows.

In *September* and *October*, they leave their thickets and go to the rut, during which season they have no certain place either for food or harbour. He ought not to come too early into the springs or hewts where he thinks the hart feedeth, and is at relief, for they usually go to their layers in the springs; and if they be old, crafty deer, they will return to the border of the coppice, and there listen whether they can hear any approaching danger, and if they once chance to vent the huntsman or the hound, they will instantly dislodge.

Now is the huntsman's proper time: let him beat the outsides of the springs or thickets; if he find the track of a hart or deer, he ought to observe whether it be fresh, which may be known by the following tokens; the dew will be beaten off, the soil fresh, or the ground broken, or printed with other tokens; so he may judge his game lately went that way.

Having found his slot or treading, and the hound sticking well upon it, let him hold him short; for he shall draw better being so held than if he were let at length

length of the leam; and thus let him draw till he is come to the covert, if possible, taking notice, by the way, of the slot, fails, entries, and the like, till he hath harboured him.

Having done this, let him plash down small twigs, some above and some below, as he shall think fit; and then while the hound is hot, let him beat the outsides and make ring-walks twice or thrice about the wood, one while by the great and open ways, that he may help himself by the eye; another while through the thickets and coverts, for fear lest his hounds should overshoot it, having still better scent in the covert than highways.

If he is in doubt whether the hart is gone out of the ring-walks, or fears he has drawn amiss, then let him go to the marks that he plashed, and draw counter, till he may take up the fewmet.

Directions for harbouring a Stag.

The harbourer having taught his hound to draw mute always round the outside of the covert, as soon as his hound challenges, which he knows by his eager flourishing and straining his leam, he is then to seek for his slot; if he finds the heel thick, and the toe spreading broad, these are signs that it is an old deer, especially if it is fringed, that is, broken on both the sides.

And if the ground be too hard to make any judgment from the slot, he must draw into the covert, as he passes observing the size of the entries; the larger and higher, the older the deer: as also his croppings of the tender as he passes; the younger the deer the lower; the older the deer the higher are the branches.

He ought also to observe his fewmishings as he passes, the largeness of which bespeaks the largeness of the deer: he must also be curious in observing the fraying-post, which is usually the last opportunity he has to judge by; the eldest deer fraying highest against the largest trees, and these being found, it may be concluded his harbour is not far off.

Therefore he ought to draw with more circumspection, checking the drawing-hound to secure him from spending when he comes so near as to have the deer in the wind, which when you have discovered by his eagerness that draws him, let him retire some distance back, and round the place with the hound, first at a considerable distance, and then if he finds him not disturbed, let him make a second round within that; and this will not only secure you that he is in the harbour, but will also secure his continuance there; for he will not (except he be forced) pass that taint your hound left in the rounding of him.

So that having broke a bough for his direction, he may at any time unharbour that hart.

How to find a Hart lost the Night before.

A huntsman may fail of killing a hart divers ways; sometimes by reason of great heat, or by being overtaken with the night, or the like.

If it should happen so do as follows:

First, they who follow the hounds, must mark the place where they left the chase, and at break of day bring the blood-hound to it with the kennel after him.

If any hound vents, whom he knows to be no liar nor babler, he shall put his hound to it, whooping twice, or blowing two notes with his horn, to call on all his fellows about him; and if he finds that the hart is gone into some likely covert or grove, then must he draw his hounds about it, and if he there renews the slot or view, let him first consider whether it be right or not; if it be right let him blow his horn.

And if he happens to find five or six layers, let it not seem strange, for harts hunted and spent do frequently make many layers together, because they cannot stand, but lie and feed.

Harts, which are hunted, most commonly run up the wind, and straight forwards as far as they are able, and finding any water or soil, do stay a long time therein, by which means their joints are so benumbed and stiffened, that coming out, they cannot go far, nor stand up long, and therefore are forced to take up with any harbour they can find which may be a present covert to them. In the seeking of a hart in high woods, you must have regard to two things; that is, the thickets of the forest, and the season.

If it be in very hot weather, gnats, horse-flies, and the like, drive the deer out of the high woods, and they disperse themselves into small groves and thickets, near places of good feeding.

According to the coverts which are in the forest, so must the huntsman make his inquiry; for sometimes the hart lies in the tufts of white thorn, sometimes under little trees, other whiles under great trees in the high woods and sometimes in the skirts of the forest, under the shelter of little groves and coppices.

And therefore the huntsman must make his ring-walk large or small, according to the largeness of those harbours or coverts.

How to unharbour a Hart and cast off the Hounds.

When the relays are well set and placed, let the huntsman with his pole walk before the kennel of hounds, and being come to the blemishes, let him take notice of the slot, and such other marks as may be observed from the view of the deer, in order that he may know whether the hounds run riot or not.

Then the huntsman must cast abroad about the covert, to discover the hart when he is unharboured, the better to distinguish him by his head or otherwise.

The hart being unharboured, let all the hounds be cast off, then crying one and all, *To him, to him, That's he, that's he*, with other such words of encouragement.

If the blood-hound, in drawing, chance to overshoot, and draw wrong or counter, then the huntsman must draw him back, saying, *Back, back, Soft, soft*, until he hath set him right again; and if he perceive that the hound hath mended his fault, by his kneeling down and

and obſerving the ſlot or ports, he muſt then cheriſh him, by clapping him on the back, and giving him his encouraging words; thus muſt he draw on with his hounds till he deſcries the deer.

Some deers are ſo cunning and crafty, that when they are unharboured from their layer, they will coaſt round about to find ſome other deer, whereby the hounds may be confounded in the change of hunts.

If the huntſman have the hart in view, he ought ſtill to draw upon the ſlot, blowing and hallooing till the hounds are come in. When he finds they are in full cry, and take it right, he may then mount, keeping under the wind and coaſt, to croſs the hounds that are in chaſe, to help them at default, if need requires. A huntſman ought never to come nearer to the hounds in cry, than fifty or ſixty paces, eſpecially at the firſt uncoupling, or at caſting off the relays; for if a hart make doubling, or wheel about or acroſs before the hounds (as he ſeldom does) if then you come in too haſtily, you will ſpoil the ſlot or view, and ſo the hounds for want of ſcent, will be apt to over-ſhoot the chaſe.

But if after you have hunted an hour, the huntſman perceives that the hart makes out end-ways before the hounds, and that they follow in full cry, taking it right, then he may come in nearer, and blow a recheat to the hounds to encourage them.

Hereupon the hart will frequently ſeek other deer at layer, and rouze them, on purpoſe to make the hounds change hunt, and will lie down in ſome of their layers flat upon his belly, and ſo ſuffer the hounds to over-ſhoot him; and that they may not either ſcent or vent him, he will gather up all his four feet under his belly, and will blow or breathe on ſome moiſt place of the ground, ſo that the hounds may paſs by him poſſibly, though within a yard, and never vent him.

For which cauſe huntſmen ſhould blemiſh at thoſe places, by which they ſee the hart enter into a thicket, to the end, that if the hounds ſhould fall to change, they may return to thoſe blemiſhes, and put the hounds to the right ſlot and view, until they have rouzed and found him again.

A hart has another way to bring the hounds to change, and that is when he ſees himſelf cloſely purſued, and that he cannot ſhun them, he will break into one thicket after another to find deer, rouzing and herding with them, continuing ſo to do ſometimes above an hour, before he will part from them or break herd.

Finding himſelf ſpent, he will break herd and fall a doubling and croſſing in ſome hard highway that is much beaten, or elſe in ſome river or brook, in which he will keep as long as his breath will permit him; and if he be far before the hounds, it may be then he will uſe the former device, in gathering his legs under his belly, as he lies flat along upon ſome hard dry place.

Sometimes he will take ſoil, and ſo cover himſelf under the water, that you ſhall perceive nothing but his noſe.

In this caſe the huntſman muſt have a ſpecial regard to his old hounds, who will hunt leiſurely and fearfully, whereas the young hounds will over-ſhoot their game.

If the hounds happen to be at a default, and hunt in ſeveral companies, then it may be gueſſed that the hart hath broken herd from the freſh deer, and that the freſh deer have ſeparated themſelves alſo; then notice is to be taken how the old ſtaunch hounds make it, and to obſerve the ſlot; and where you ſee any of the old hounds challenge, cheriſh and encourage that hound or hounds, haſtening the reſt in to him, crying hark to ſuch a hound, calling him by his name.

Here it is to be noted, that they cannot make it ſo well in the hard highways as in other places, becauſe they cannot have there ſo perfect a ſcent, either by reaſon of the tracks or footing of divers ſorts of beaſts, or by reaſon of the ſun drying up the moiſture, ſo that the duſt covereth the ſlot. Now in ſuch places (ſuch is the natural ſubtlety of the beaſt for ſelf-preſervation) the hart will make many croſſings and doublings, holding them long together, to make the hounds give over the chaſe.

In this caſe, the firſt care of the huntſman is to make good the head, and then draw round apace; firſt down the wind, though deer uſually go up the wind; and if the way is too hard to ſlot, then be ſure to try far enough back. Expert hounds will often do this of themſelves.

But if a hart break out into a champagne country, and in the heat of the day too, *i. e.* between noon and three of the clock, then if the huntſman perceive his hounds out of breath, he ought not to force them but comfort them; and though they do not call upon the ſlot or view, yet it is ſufficient if they do but wag their tails, for being almoſt ſpent, it is painful for them to call.

The laſt refuge of a hart that has been cloſely hunted, is the water, which in terms of art is called the ſoil; ſwimming oftneſt down the ſtream, keeping the middle, fearing leſt by touching any bough by the water-ſide, he may give ſcent unto the hounds.

Whenever you come to a ſoil (according to the old rule, *He who will the chaſe find, let him firſt try up river and down the wind*) be ſure if your hounds challenge but a yard above his going in, that he is gone up the river; for though he ſhould keep the very middle of the ſtream, yet will that, with the help of the wind, lodge part of the ſteam and imboſh that comes from him on the bank, it may be a quarter of a mile lower, which has deceived many.

Therefore firſt try up the ſtream, and where a deer firſt breaks ſoil, both man and hound will beſt perceive it.

Now the ways to know when a hart is ſpent, are theſe:

Firſt. He will run ſtiff, high, and lumpering.

Secondly. If his mouth be black and dry, without any foam upon it, and his tongue hanging out; but they will often cloſe their mouths to deceive ſpectators.

Thirdly. By his ſlot; for oftentimes he will cloſe his claws together as if he went at leiſure, and preſently again open them wide, making great glidings, and hit-

ting his dew-claws upon the ground, following the beaten paths without doublings, and sometimes going all along by a ditch-side, seeking some gap, not having strength to leap it: yet it has been often seen, that dead run deer have taken very great leaps.

A huntsman must therefore govern himself according to the subtlety and craft of the deer, observing the doublings and crossings, and the places where they are made; making his rings little or great, according to the nature of the places, time, and season; for hounds are apt to shoot where herbs and flowers have their most lively scent and odoriferous smell.

Neither is the perfection or imperfection of the hounds to be disregarded. And if these things be done, it will be much if you lose a hart by default.

To kill a Hart at bay.

It is very dangerous to go in to a hart at bay, especially at rutting-time, for at that time they are most fierce.

There are two sorts of bays; one on the land, and the other on the water. Now if the hart be in a deep water, where you cannot well come at him, then couple up your dogs; for should they continue long in the water, it would endanger their surbating or foundering.

In this case get a boat and swim to him, with a dagger drawn, or else with a rope that has a noose, and throw it over his horns; for if the water be so deep that the hart swims, there is no danger in approaching him; otherwise you must be very cautious.

As to a land bay, if a hart be burnished, then you must consider the place; for if it be in a plain and open place, where there is no wood nor covert, it is dangerous and difficult to come in to him; but if he be on a hedge side, or in a thicket, then while the hart is staring on the hounds, you may come softly and covertly behind him and cut his throat.

If you miss your aim, and the hart turn head upon you, then take refuge at some tree; and when the hart is at bay, couple up your hounds; and when you see the hart turn head to fly, gallop in roundly to him, and kill him with your sword.

The first ceremony, when the huntsman comes in to the death of a deer, is, to cry, *Ware haunch*, that the hounds may not break in to the deer; which being done, the next is the cutting his throat, and there blooding the youngest hounds, that they may the better love a deer, and learn to leap at his throat: then the mort having been blown and all the company come in, the best person, who hath not taken say before, is to take up the knife that the keeper or huntsman is to lay across the belly of the deer, some holding by the fore-legs, and the keeper or huntsman drawing down the pizzle, the person who takes say, is to draw the edge of the knife leisurely along the middle of the belly, beginning near the brisket, and drawing a little upon it, enough in the length and depth to discover how fat the deer is; then he that is to break up the deer, first slits the skin from the cutting of the throat downwards, making the arber that so the ordure may not break forth, and then he paunches him, rewarding the hounds with it.

In the next place, he is to present the same person, who took say, with a drawn hanger, to cut off the head of the deer. Which being done, and the hounds rewarded, the concluding ceremony is, if it be a stag, then one blows a triple mort; and if a buck, a double one, and then all who have horns, blow a recheat in consort, and immediately a general whoop, whoop.

It was formerly termed a wind or winding horn; the horns probably, were winding, or compassed, but afterwards straight horns grew into use, and then they used to say, blow a horn, and sound a horn; and now, *French* or *German* horns are in repute.

In many cases formerly, leasing was observed; that is, one was held either cross a saddle or on a man's back, and with a pair of dog-couples, receives ten pounds and a purse, that is, ten stripes (according to the nature of the crime, more or less severe) and an eleventh that used to be as bad as the other ten, called a purse.

There are many faults; as coming too late into the field; mistaking any term of art: these are of the lesser sort; the greater are, hallooing a wrong deer, or leaving the field before the death of the deer, &c.

HART, OR STAG EVIL, is a sort of rheum or defluxion, that falls upon the jaws and other parts of the forehead of a horse, which hinders him from eating.

Sometimes this distemper affects the parts of the hinder quarters.

HART ROYAL, is an hart that has been hunted by the King or Queen, and escaped with life.

HART ROYAL PROCLAIMED; thus they call an hart, who having been hunted by the King or Queen, flies so far from the forest or chase, that it is unlikely he will ever return of his own accord to the place where he lodged, and that thereupon a proclamation is made in all towns and villages thereabouts, that none should kill him or offend him, but that he may safely return if he list.

HASTE, OR QUICKEN, YOUR HAND, is an expression frequently used by the riding master, when a scholar works a horse upon volts, and the master has a mind he should turn his hand quicker to the side on which the horse works; so that if the horse works to the right, he turns quicker with his shoulders to the right; and the like is observed, if he works to the left.

HAUNCH OR HANCH; the hip, part of the body of a living creature.

The haunches of a horse are too long, if, when standing in the stable, he limps with his hind legs farther back than he ought, and that the top or onset of his tail does not answer in a perpendicular line to the tip of his hocks; as it always does in horses whose haunches are of a just length.

There are some horses, which though they have too long

long haunches, yet commonly walk well; such are good to climb hills; but to balance that, they are not fit to go down a descent; for they cannot ply their hams, and they never gallop slowly, but almost at full speed.

HAUNCH OR HIP OF A HORSE, is that part of the hind quarter that extends from the reins or back to the hough or ham.

The art of riding the great horse, has not a more necessary lesson than that of putting a horse upon his haunches; which, in other terms, is coupling him well, or putting him well together, or compact.

A horse that can't bend and lower his hips, throws himself too much upon his shoulders, and lies heavy upon the bridle.

A horse is said to be thoroughly managed when he bears well upon the hand, knows the heels, and sits well upon his hips; as,

This horse has his haunches in subjection, and falques very well; for in making his falquades, he holds his haunches very low, and bends admirably well.

To make a horse bend his hips, you must frequently go backward, and make use of the aids of the hands, and of the calves of your legs in giving him good stops; and if that does not succeed, try him upon a calade or sloping ground, after the *Italian* fashion. Hence they say,

Your horse makes his hips accompany his shoulders so well, that he is perfectly right set. *See Put upon the* HAUNCHES, CALADE, CAVESSON, FALQUADE, *and* FEEL.

To drag the haunches is to change the leading foot in galloping. *See* GALLOP FALSE.

Head in and hips in. *See* HEAD.

To gallop with the haunch in. *See* GALLOPADE.

HAUNT. Habit or custom.

Among hunters, the walk of a deer, or the place of his ordinary passage.

HAUNTS OF FOWLS. It is a thing of no small moment to a fowler to be acquainted with the haunts of fowls.

In order to this you ought to understand, that all kinds of the larger fowls, *viz.* those which divide the foot, have their haunts by the sides of shallow rivers, brooks, and plashes of water; and those who do not appear in flocks, but you may see here one single, there a couple, and the like, which makes them difficult to be taken by engine or device; but they are the best flight for hawks that can be imagined.

Likewise these fowls delight in low and boggy places; and the more sedgy, marshy, and rotten such grounds are, the fitter they are for the hunting of these fowl.

They also delight in the dry parts of drowned fens, which are over grown with tall long rushes, reeds, and sedges.

Lastly, they delight in half-drowned moors, or the hollow vales of downs, heaths, or plains, where there is shelter either of hedges, hills, tufts of rushes, or trees, where they may lurk obscurely.

The lesser fowl, which are web-footed, continually haunt drowned fens, where they may have constantly plenty of water, and may swim undisturbed by man or beast; their haunt is likewise in the main stream of rivers, where the current is swiftest and least subject to freeze; and by how much such rivers are the broader and deeper, the greater delight these fowls take therein.

The wild-goose and barnacle excepted, who abide no water above their founding; for when they cannot reach the ouze, they instantly remove thence, seeking out more shallow places.

These two last named, are inconceivably delighted with green winter corn, and therefore you will always find them where such grain is sown, especially if the ends of the lands have much water about them.

Also the smaller fowls do very much frequent small brooks, rivers, ponds, drowned meadows, pastures, moors, plashes, meres, loughs and lakes, especially if well stored with islands unfrequented, and well furnished with shrubs, rushes, reeds, &c. and then they will breed there, and frequent those places both summer and winter.

HAW. A gristle which grows between the nether eye-lid and eye of a horse, and if not timely removed, will put it quite out.

It proceeds from gross, tough, and phlegmatic humours, which fall from the head, and there uniting together, and indurating, at length come to this infirmity.

The signs by which this may be known, are, the watering of the eye, and the involuntary opening of the nether lid. Though every farrier can cut it out; but ordinarily the horse must be held fast by the head, and with a strong double thread, put a needle in the midst of the upper eye-lid, and tie it to his head; then take the needle again, with a long thread, and put it through the gristle of the haw, and with a sharp knife cut the skin finely round, and therewith pluck out the haw.

Then take the blood out of his eye, wash it with beer or ale, and put in a good deal of salt, and afterwards wash it again, stroaking it down with your hand, and let him rest.

The best method of cure is to cut it away, though, while it is very small, it may be destroyed by the following powder.

Take twenty grains of cuttle-bone; ten grains of common glass finely levigated; fifteen grains of white vitriol; half a dram of Florentine orice-root; mix, and blow a little upon the haw three times a-day; and half an hour after each time this powder is blown in, wash it away with a little brandy and water.

If this excrescence is cut away, do not cut it too near, for that on the other hand may cause a bleared eye. After the harder part is all cut off, you may dress the wound with honey of roses, mixed with one eighth part of tincture of myrrh; and if spongy flesh arises, sprinkle it with burnt alum.

HAWK. This bird is distinguished into two kinds; the long-winged and short-winged hawk.

The first year of a hawk it is called a Soarage; the second an Enterview; the third a White-Hawk; and the fourth a Hawk of the first Coat.

Of the first, there are these, which were most in use here amongst us:

The Gerfalcon and its male the Jerkin.
The Falcon and ditto Tiercel Gentle.
The Lanner and ditto Lanneret.
Bockerel and ditto Bockeret.
The Saker and ditto Sakeret.
The Merlin and its male the Jack Merlin.
The Hobby and ditto Jack, or Robbin.
The Stelletto of *Spain*.
The Blood Red Rook of *Turkey*.
The Waskite from *Virginia*.

Of the short-winged hawks, there are these that follow.

The Eagle and its male the Iron.
The Goshawk and ditto Tiercel.
The Sparrow-Hawk and its male the Musket.
The two sorts of *French* Pie.

Of the inferior sort are these;

The Stanyel, or Ring Tail.
The Raven and Buzzard.
The Forked Kite and Bold Buzzard.
The Hen-driver, *&c.*

Note, For the terms used in hawking, *see the Article* TERMS.

HAYS. Particular nets for taking of rabbets, hares, &c. common to be bought in shops that sell nets; and they may be had larger, or shorter, as you think fit; from fifteen to twenty fathom is a good length; and for depth a fathom.

As rabbets often straggle abroad about mid-day for fresh grass; when you perceive a number gone forth to any remote brakes or thickets, pitch two or three of these hays about their burrows; lie close there, but in case you have not nets enough to enclose all their burrows, some may be stopped with stones, bushes, &c.

Then set out with the coney dog, to hunt up and down at a good distance, and draw on by degrees to the man who is with you, and lies close by the hay, who may take them into it.

HAYWARD, OR HAWARD, a keeper of the common herd of cattle of the town, who is to look that they neither break nor crop the edges of enclosed grounds, and is sworn in the Lord's court for the performance of his office.

HEAD, PAIN IN, OF ASSES, mostly proceeds from cold taken by travelling in wet ways, or lying in wet places, or else by being too much exposed to the sun in the hot seasons.

Take polypodium of the oak a handful, mushrooms two or three, sorrel a handful; boil them in stale beer, and give it hot.

HEAD, PAIN IN, OF GOATS, often happens through excessive heats or colds; also from wet or unwholesome feedings.

Take a handful of rosemary-tops, an ounce of turmeric beaten into powder, and the like quantity of mithridate; boil them in water, and put a little vinegar to it, and so let him drink half a pint each morning: put vinegar, wherein hyssop has been seethed, into his nostrils, and hold up his head, that he turn it not out, for six minutes, or thereabout.

HEAD, PAIN IN, OF SHEEP; also happens in excessive hot weather, which is very troublesome to sheep, hinders their feeding, and endangers their lives.

Let blood in the temple-veins, and slit the nose-vein; then take mint, rue, and baum, of each a little handful, and boil them in two quarts of small beer: give a pint morning and evening successively. Or,

Take six grains of assa-fœtida, two spoonfuls of the juice of sage, a quartern of wine-vinegar, and give them the sheep as warm as may be. Or,

Get long-pepper, honey, anniseeds, linseed, and liquorice, each an ounce; powder what will pulverise; then put them all into two quarts of milk, and give half a pint at a time, washing the mouth and temples with vinegar.

HEAD, PAIN IN, OF SWINE; the cure:

First let the swine blood under the tongue, then boil rue, savin, and croplestone, in their water, and scatter some sweet malt in it, and so they will the better take it. Or,

Bleed him under the tongue and ears, rub his mouth with a mixture of vinegar and bay-salt, and give him lettuce-leaves, or colewort and beet-leaves, boiled in whey; and in his water boil rosemary, vervain, splent beans, and lavender: do this two or three days together. Or,

If it is the head-ach, or sleepy-evil, bleed under the tongue, and rub the wound with bay-salt, giving them for a time cabbage or colewort leaves, tares, pease, and whey to drink.

HEAD OF A HORSE should be narrow, lean and dry, neither should it be too long: but the main point is a good onset, so as he may be able to bring it into its natural situation: which is, that all the fore parts, from the brow to the nose, be perpendicular to the ground, so that if a plummet were applied thereto, it must just raze or shave it.

Every horse that has a large head, is apt to rest and loll upon the bridle, and by that means, in a journey, tire the hand of the rider; and besides, he can never appear well with a large head, unless he has also a long and well turned neck.

Head of a horse imports the action of his neck, and the effect of the bridle and the wrist; this horse plants his head well, and obeys the hand; such a horse refuses to place his head; he shoots out his nose, and never rests right upon the hand, *&c.*

HEAD IN, AND LIKEWISE THE HIPS. You must passage your horse's head and croupe in, *i. e.* work him sideways, upon two parallel lines, at step or trot, so that when the horse makes a volt, his shoulders mark a piste, or trade, at the same time that his haunches give the tract of another, and the horse plying or bending his neck, turns his head a little within the volt, and so looks upon the ground he is to go over.

HEAD-STALL. *See* CAVESSON.

HEADS [amongst Hunters]; all those in deer that have

have double burs, or the antlers; royals and croches turned downwards, are properly termed heads.

Heads of so many croches: all heads of deer which do not bear above three or four, the croches being placed aloft, all of one height, in form of a cluster of nuts, generally go by this name. *See* HARTS.

HEARSE (among Hunters) a hind of the second year of her age. *See* BROCKET *and* HIND.

HEARTS. A horse of two hearts, *i. e.* a horse that works in the manage with constraint and irresolution, and cannot be brought to consent to it.

Such horses are much of a-piece with your ramingues, or kickers against the spurs.

HEAVY. To rest heavy upon the hand, is said of a horse, who, through the softness of his neck, weakness of his back, and weight of his fore-quarters or through weariness, throws himself upon the bridle, but withal, without making any resistance, or any effort to force the horseman's hand. Thus they say,

Your horse has too great an *appui* or rest upon the bridle. he is heavy upon the hand, trot him upon his haunches, and sustain or bear up with the bridle.

By stopping him, and making him go back frequently, you may make him light upon the hand, and so correct that fault, if it comes only from laziness and stiffness; but if it proceeds from a defect in the back, there is no remedy for it.

Though a horse is heavy upon the hand, yet that is not so great a fault as if he pressed and resisted the hand. *See* PRESS.

HECK. An engine to take fish in the river Ouse. A salmon heck is a grate to catch that sort of fish.

HEEL OF A HORSE should be high and large, and one side of it should not rise higher upon the pastern than the other.

For distempers in this part, and their cures, *See* SCABBY HEELS *and* SCRATCHES.

HEEL OF A HORSE, is the lower hinder-part of the foot, comprehended between the quarters, and opposite to the toe.

This being the part of a man that is armed with the spur, the word heels is taken from the spur itself: hence they say,

This horse understands the heel well; he knows the heels; he obeys the heels; he answers the heels; he is very well upon the heels: the meaning of all which is, that the horse obeys the spurs; which, in effect, is flying from them.

Make him fly from the right heel, make him fly from the left.

To ride a horse upon the hands and heels, is to make him take the aids of the hands and the heels with a tender sense.

To ride a horse from one heel to the other, is to make him go side-ways, sometimes to one heel, sometimes to another: for instance, having gone ten paces, in flying from the right heel, you make him without stopping go still side-ways in flying from the left heel, and so on alternately.

Inner heel, and outer heel. *See* INN AND NARROW.

HEELED, OR BLOODY-HEELED COCK. A fighting cock, that strikes or wounds much with his spurs. Cock-masters know such a cock, while a chicken, by the striking of his two heels together in his going.

HEINUSE (among Hunters) a roe-buck of the fourth year.

HELPS. To teach a horse his lesson, there are seven helps or aids to be known; these are the voice, rod, bit, or snaffle, the calves of the legs, the stirrups, the spur, and the ground. These helps are occasionally turned into corrections. *See* AIDS.

HEN'S-DUNG, SWALLOWED BY HORSES, Mr. LAWRENCE says, frequently happens to country cart-horses, passing off with a slight sickness, and without notice. Whilst the horses are absent, the poultry will always watch the opportunity of examining the mangers, where they leave both dung and feathers, which ought ever to be carefully swept away, previous to feeding the horses. Horses drinking at ponds will often suck in a variety of filth and vermin. The signs of having swallowed leeches, or other vermin, are, hanging the head to the ground, and a discharge of impure saliva, sometimes mixed with blood. Give a pint of sweet oil warmed, with a glass of brandy, and a drachm of ground ginger. Scalded bran and gruel. The oil may be repeated if needful. Mild dose of aloes and rhubarb, with one ounce diapente, washed down with warm ale.

When any considerable quantity of fowls dung and feathers have been swallowed, the horse will lose his appetite, swell in his body, and void fœtid, slimy matter from his fundament. The same medicines and treatment, with the addition of honey to the oil. Walking exercise, the horse clothed. Sow-thistle dried and powdered, smallage-seed bruised, marjoram, and the ashes of the root, leaves, and fruit of briony, were the specifics of former times.

HERBER. A *French* word used by the farriers, importing the following application:

For some diseases, such as those of the head and the anticor, they put into a horse's counter a piece of hellebore-root, which makes it swell and suppurate.

HERN OR HERON. A large wild water-fowl, with a long neck and bill, that flies high, and feeds upon fish.

A hern at siege, is a hern standing at the water-side, and watching for prey.

HERN-SHAW. } A place where herns breed.
HERNERY. }

HIDE-BOUND. A distemper in horses, where the skin sticks so fast to the back and ribs, that you cannot pull it from the flesh, with your hand.

This proceeds from several causes; sometimes from poverty, and want of good ordering; sometimes by being over-heated with hard riding, and carelessly letting him stand in the wet and rain; sometimes it proceeds from foul and corrupted blood, which dries up the flesh, which wanting its natural course, causeth this shrinking of the skin together, that makes him have a great

a great, ſhrivelled, and ſhrunk-up belly to his flanks, cauſing his hair to ſtart, and his legs to ſwell, &c.

Hard uſage and bad keeping are the moſt general cauſes, when it is an original diſtemper; but it is for the moſt part a ſymptom attending ſome other diſeaſe, the hide-bound horſe is ſaid by many to be cheſt-foundered or b dy-foundered.

As to the cure, if it is a ſymptom attending another diſeaſe, its remedy is the removal of the diſeaſe on which it depends. In general it requires a cooling laxative diet.

Mr. LAWRENCE ſays that the cure is immediate graſs; or, good ſtable care with cloathing, plenty of friction, and gentle walking exerciſe, with the precaution of not over-feeding at firſt. Carrots, boiled barley, and maſhes. One moderate bleeding, or inſtead, what ſometimes is very ſucceſsful, one rowel. The mildeſt alterative powder, a fortnight, then a doſe of aloetic phyſic. The complaint neglected will degenerate into a ſurfeit.

HIDE-BOUND IN ASSES:

Let blood under the tail, and rub it with bay ſalt; then bruiſe and boil a handful of fennel roots in new wort, with an ounce of lupines, or grey peaſe, and as much chamomile. Give a pint at a time morning and evening.

HIDE-BOUND IN CATTLE:

Bleed them in the neck-vein; then take of rue, hyſſop, ſage, featherfew, ſouthernwood, roſemary, every one of theſe herbs a handful; chop and grind theſe together; then take a quart of ſtrong ale or beer, and put to the herbs, and ſtir them together: then ſtrain the herbs as well as poſſibly you can from the ale; and then take long pepper, fenugreek, turmeric, anniſeeds, and liquorice-powder; make all theſe into powder, and take two penny-worth of ſallad-oil; mix all theſe with the juice of the herbs and ale, make them milk-warm, and ſo give it to the beaſt; and, if they be weak and far ſpent, then you muſt cut them in the dew-lap, and put in ſome bear's-foot, or ſpear-graſs, with ſalt and butter, and they will mend preſently.

HIGH BEARING COCK. A term uſed with reſpect to fighting cocks; which ſignifies one that is larger than the cock he fights with; as a low bearing cock, is one over-matched for height.

HIND (among Hunters) a female ſtag, ſo called in the third year of its age. In the ſecond year ſhe is called a hearſe or brock's ſiſter: the firſt year a calf.

HIND CALF. A male hart, or hind of the firſt year. She fawns in *April* and *May*.

HIND-HAND. *See* HAND.

HIP. *See* HAUNCH.

HIP-SHOT. A horſe is ſaid to be ſuch when he has ſprained his haunches or hips, ſo as to relaxate the ligaments that keep the bone in its due place.

HIP-SHOT is when the hip-bone of an horſe is removed out of its place; this happens to a horſe many ways; by a wrench, ſtroke, or ſlip, ſtrain, ſliding, or falling.

The ſigns to know it, are, the horſe will halt, and go ſideling, and the fore hip will fall lower than the other; nay, in time, the fleſh will conſume away; ſo that if it be let alone too long, it will never be cured. *See* STRAINS.

HOBBY. The hobby is a hawk of the lure, and not of the fiſt; is a high flier, and is, in every reſpect, like the ſaker, but that ſhe is a much leſs bird.

The hobby hath a blue beak, but the ſeer thereof, and legs, are yellow; the crinets or little feathers under her eye are very black; the top of her head is betwixt black and yellow, and ſhe hath two white ſeams on her neck, the plumes under the gorge, and about the brows are reddiſh without ſpot or drop, the breaſt feathers for the moſt part brown, yet interſperſed with white ſpots; her back, train and wings are black aloft, having no great ſcales upon the legs, unleſs it be a few beginning behind; the three ſtretchers and pounces are very large with reſpect to her ſhort legs; her brail feathers are tinctured between red and black; the pendant ones, or thoſe behind the thigh, of a ruſty, ſmoaky hue.

HOG-STEER (amongſt Hunters) a wild boar three years old.

HOLD. As a mare holds. *See* RETAIN.

HOOF OF A HORSE, is all the horn that appears when his foot is ſet to the ground; the hoof ſhould be of a figure very near round, and not longiſh, eſpecially towards the heel, for long feet are worth nothing.

The horn of the hoof ſhould be ſolid, tough, high, ſmooth, without any circles, ſomewhat ſhining, and of a dark colour, for the white is commonly brittle, and may be known by many pieces being broke from the horn round the foot: to be excellent, the horn ſhould be of the colour of a deer's hoof, and the whole foot round, but a little larger below than above.

The hoofs of a horſe are either perfect or imperfect; the former, but now deſcribed, is ſo diſpoſed, that the horſe may tread more on the toe than the heel, being alſo upright, and ſomewhat hollow on the inſide.

1. As for the imperfect hoof, it is that which wants any of the aforementioned qualities, particularly if it be not round, but broad, and ſpreading out of the ſides and quarters; that horſe for the moſt part has narrow heels, and in proceſs of time, will be flat-hooſed, neither will he carry a ſhoe long, or travel far, but ſoon ſurbate; and by treading more upon the heels than on the toes, he will go low on the paſterns, ſo that his feet, through weakneſs become ſubject to falſe quarters, gravelling, &c.

2. Others are rugged, or brittle-hooſed: when the hoof is not ſmooth, and full of circles like ram's horns, it is not only unſeemly to the eye, but even a ſign that the foot is in no good temper, but too hot and dry.

3. Some hoofs are long, which cauſe the horſe to tread all upon the heels, to go low in the paſterns, and by that means to breed wind-galls.

4. There are ſome crooked hoofs, broad on the outſides,

ſides, and narrow on the inſide, whereby the horſe is ſplay-footed; this will oblige him to tread more inward than outward, and go ſo cloſe with his joints together, that he cannot well travel without interfering, or perhaps ſtriking one leg ſo hard againſt the other as to become lame; but if it be broad within, and narrow without, that is not hurtful, yet will occaſion the horſe's gravelling more on the outſide than the inſide.

5. Others have flat hoofs, and not hollow within, which give riſe to the inconveniencies above ſpecified in the firſt ſort of imperfect hoofs; but if it be too hollow, it will dry the faſter, and make him hoof-bound, ſince the too hollow hoof is a ſtraight, narrow one, and grows upright; for though the horſe treads upright, and not on his heels, yet ſuch kind of hoofs will dry too faſt, if not continually ſtopped.

6. When the fruſh is broad, the heels will be weak, and ſo ſoft that you may almoſt bend them together, then he will never tread boldly on the ſtones or hard ground.

7. Some have narrow heels; they are tendereſt; that at laſt the horſe will grow to be hoof-bound. *See* SHOEING.

HOOF BONY, is a round bony ſwelling, growing upon the very top of a horſe's hoof, and always is cauſed by ſome blow or bruiſe, or by bruiſing himſelf in his ſtall, by endeavouring to ſtrike at a horſe that ſtands next him, and ſo ſtrikes againſt the bar that parts them.

The cure is, firſt to digeſt the ſwelling, either with rotten litter, or hay boiled in old urine, or elſe with a plaiſter of wine-lees and wheaten flour boiled together to ripen it and bring it to a ſuppuration, or diſſolve the tumour.

But if it comes to a head, lance it in the loweſt part of the ſoftneſs, with a thin hot iron to let out the matter.

Tent it with turpentine, deer's ſuet and wax, of each equal quantities melted together, laying a plaiſter of the ſame ſalve over it, to keep in the tent till it be thoroughly well.

HOOF-BOUND IN A HORSE, is a ſhrinking of the hoof at the top, and at the heel, which makes the ſkin ſtart above the hoof and ſo grow over it.

It may happen to a horſe divers ways; either by keeping him too dry in the ſtable, by ſtraight ſhoeing; or elſe by ſome unnatural heat after foundering.

The ſigns of it are, he will halt much; his hoofs will be hot, and if you knock them with a hammer, they will ſound hollow like an empty bottle.

As for the cure, that being the proper buſineſs of the farrier, I ſhall omit to preſcribe for it here.

HOOF-BRITTLE. An infirmity in horſes, proceeding either naturally or accidentally; naturally from the ſire or dam; accidentally from a ſurfeit, that falls down into their feet; or elſe from the horſe's having been formerly foundered.

For the cure, take unwrought wax, turpentine, ſheep's ſuet, and hog's greaſe, of each four ounces; ſallad oil, a quarter of a pint, and of dog's greaſe, half a pound; boil them all together, and keep them in a gally-pot for uſe.

With this anoint the hoof well for two or three days, eſpecially at the ſetting on of the hair, and ſtop them with cow-dung and hog's-greaſe melted together.

HOOF-CAST, OR, CASTING OF THE HOOF, is, when the coffin falls clean away from a horſe's foot.

HOOF-SWELLED. An infirmity that ſometimes happens to young horſes by being over-ridden, or too hard wrought, which cauſes them to ſwell in that part, by reaſon of the blood falling down and ſettling there, which, if not ſpeedily removed, will beget a wet ſpavin.

It proceeds from ſome founder, prick, or ſlap, breaking on the top round about the coronet, which in time cauſes it to fall off.

For the cure: Take the ſtrongeſt aqua-fortis you can get, and firſt file or draw away the old hoof ſomewhat near, with a file, or drawing-iron; then touch the hoof, ſo prepared, three or four dreſſings or more, with the aqua-fortis, and anoint the foot with an ointment, made of one pound of hog's-greaſe, patch-greaſe three quarters of a pound; *Venice* turpentine, five ounces; new wax, three ounces, and ſallad oil, three ounces; all melted together over the fire: the coffin of the foot up to the top, being anointed with this, a new hoof will grow on it.

HOOF LOOSENED, is an infirmity in a horſe; it is a diſſolution or dividing of the horn or coffin of his hoof from the fleſh, at the ſetting on of the coronet.

Now if the paring be round about the coronet, it proceeds from his being foundered; if in part, then by a prick of ſome channel-nail, quitter-bone, retreat, gravelling, cloying, or the like.

When the hoof is looſened by foundering, it will break firſt in the fore part of the coronet, right againſt the toes, becauſe the humours alſo are diſpoſed to deſcend towards the toe.

But if it proceeds from pricking, gravelling, and the like, then the hoof will looſen round about equally at firſt; but if it be cauſed by a quitter-bone, or hurt upon the coronet, it will break right above the grieved part, and is very rarely known to go any farther: as for the cure of the former, they are properly the buſineſs of a farrier.

HOOK. *See* ANGLING, FISHING, &c.

HORN. *See* HOOF.

HORN. To give a ſtroke with the horn, is to bleed a horſe in the roof of the mouth, with the horn of a ſtag or roe-buck, the tip and end of which is ſo ſharp and pointed, as to perform the office of a lancet.

We ſtrike with the horn in the middle of the fourth notch or edge of the upper jaw.

HORNED CATTLE, AND THE PROPER TREATMENT OF COWS AND CALVES.

The Sturdy, or Turning-Evil. *See* STAGGERS IN HORSES.

Foul in the Foot, ariſes from want of cleanlineſs. Prevent by conſtant attention. For cure, cleanſe with bran

bran and water boiled, and lather of black soap. Use BRACKEN's Fistula-water.

Garget in the Maw, from swallowing crabs, acorns, &c. *See the same in* HORSES.

Scouring in Cows. Dr. DOWNING's prescriptions in this case, of turpentine, pomegranate powder, pipe-clay, oak-bark, verjuice, &c. appear very dangerous and likely to lock up the offending matter in the intestines. This *diarhœa* arises from various causes, to wit, change of diet, the solution of a cold, particularly after calving, or in travel across the country; lastly, it may be a symptom of rot, either from bad keep, or constitutional; this has been sometimes discovered by the hair pulling off, as from a glandered horse. Take it in time, and allow comfortable mashes with warm, dry, and generous keep. *See the* DISEASE IN HORSES. It is called *the Rot*, in the North.

The Hoose, or Chronic Cough. This in cows is often incurable. It usually proceeds from cold taken in calving, and cold and wet winter lying. For palliation, or cure, *See* BROKEN WIND IN HORSES.

Loss of the Cud, or Quid. By reading the strange account of this indisposition in the old writers, one is led to suppose that the beast, through carelessness, drops something from its mouth, like a quid of tobacco, and lies down to mourn the loss of it: their remedies were equally satisfactory. You are directed to take yeast, clay, piss, salt, and the slaver of another beast, with which a new quid, or ball is to be made for the patient.

The real cause, and remedy for this disorder, are as follow: Cattle which ruminate, or belch up their food, for mastication, are provided by nature with four stomachs; of these the *rumen*, or cud-bag, which receives the provender, is constructed with certain fleshy fibres, or contracting muscles, which by drawing and pursing it up, enable it to throw into the gullet and mouth the crude aliment to be chewed over again. The defect exists in the laxity and weakness of those contracting muscles, and their consequent inability to expel the food for the purpose of rumination. This weakness may arise from various causes. The intention of cure is to brace the fibres and strengthen the system. Begin with warm mashes of bran and ground oats. Give from four to six drachms, according to the size and strength of the beast, of the finest aloes and rhubarb, equal quantities; salt of tartar, half an ounce; anniseeds powdered, one ounce; either in gruel, or beer, warm. Good sweet hay, small quantities at a time. In two or three days, bark and gentian, half an ounce each; ground ginger a tea-spoon full, in warm ale, moderately sweetened, twice a day, to be continued awhile; or, occasionally a decoction of horehound, chamomile, and *carduus*, sweetened: the very rough astringents, such as verjuice, oil of vitriol, alum, &c. used by cow-leaches in this case, are highly improper, and sometimes have fatal effects. CLARKE relates an instance of a horse being killed by a draught of vinegar.

Red Water, or Bloody Urine, or Foul Water, in Cows. Opium, sixty grains; with or without as much rust of iron; or thirty grains vitriol of iron to be given twice a day, in a ball mixed with flour and water, and dissolved in warm ale: corn twice a day, and cover at night, if cold weather. *Zoonomia*, Vol. II. p. 69.

Gorged, or Hoven, i. e. swelled with over-feeding, either with green or dry food. Bleed from three pints to four, and drive about moderately. The case being slight, either of the following drenches may succeed, without paunching. Glauber or Epsom salts, two ounces; syrup of buckthorn, one ounce; nitre, one ounce; oil, half a pint; peppermint-water, a quarter pint; ground ginger, *q. s.* in three pints warm whey or gruel. Or, Dr. WHYTT's medicine, of *Edinburgh*, by which he saved eighteen hoven cows out of twenty. Gin, one pint, in the same quantity of water. When the affair appears dangerous, and the beast cannot stand, lose no time, but perform the simple and easy operation of paunching; *viz.* make an incision with a sharp knife, on the near side, about an inch and a quarter long, between the rib and hip-bone, three inches below the bones of the loin. In case of pregnancy great care must be taken. The wound may afterwards be healed with tar and spirits, or Friar's balsam. A farrier, in *Sussex*, lately took from the body of a cow near two bushels of indigested hay. Some insert a tube into the wound to conduct forth the imprisoned air; and Professor MUNRO of *Edinburgh* invented a flexile one, to be passed through the mouth into the stomach of either oxen or sheep. This tube may be left in the stomach of the animal any length of time, being no hindrance to breathing; or any medicine may be injected through it. It is held a safer method than incision by Dr. M.

Epidemics in Cattle; Pest, Murrain, or Plague. *See* HORSES. Dr. LAYARD, our best, or rather only author on this subject, published his book from *Rivington's* 1757. The doctor defines the distemper as a pestilential fever *sui generis*, peculiar to animals with horns, but uninfectious to all others.

The following is extracted from *Zoonomia*. The *Pestis Vaccina*, or disorder among the cows, seems to have been a contagious fever with great arterial debility, as in some of them, in the latter stage of the disease, an *emphysema* could often be felt in some parts, which evinced a considerable progress of gangrene beneath the skin. In the sensitive, inirritated fevers of these animals, suppose about sixty grains of opium, with two ounces of extract of oak-bark, every six hours, would supply them with an efficacious medicine, to which might be added thirty grains vitriol of iron, if any tendency to bloody urine. To prevent the infection from spreading, an order from government, forbidding the removal of any cattle found within five miles of the place supposed to be infected for a few days; until the ascertainment of the existence of the contagion by a medical committee: That being ascertained, all the cattle within five miles of the place to be immediately slaughtered, and consumed within the circumscribed district; the hides to be put into lime-water before proper inspectors.

MILCH COWS AND CALVES.

Swelled Udder. Some cows are liable to have the udder exceedingly swelled and inflamed, a few days before calving. Milk the cow twice a day, and bathe the parts thoroughly with camphorated spirits. It is an

an error to suppose milking a cow before calving is injurious.

Chafing. Cows which are cat-hammed, and go close behind, are apt to chafe the udder and thighs. Wash twice a day with warm soap suds, and bathe with *aqua vegeto* and camphorated spirits mixed: or, for want of those, brandy alone.

Chapped Teats. Were the consumers of milk to witness the filth which is mixed with it, in this case, they would think less of the trouble of prevention. Instead of suppling the teat with warm milk as usual, which most probably goes, filth and all into the pan, order a bowl of warm water for the purpose. After milking, use the mixture ordered for chafing. Avoid all greasy applications if possible; if not, use elder ointment, or goose-grease, with a little cerufe mixed. In seven or eight days, the teats will be whole, and *cleanliness* may preserve them so.

Cows are much more liable to danger in parturition, than other brute animals, and their bodies at that time are exceedingly accessible to the impression of cold air. Warm shelter, if the weather be cold, or wet. Comfortable mashes, with gruel, and a quart of warm ale. If cold be already taken, mix the size of a pigeon's egg of cordial ball, in the gruel; if that be not at hand, anniseed, half an ounce, in powder; two tea spoons of powdered ginger; treacle, and the decoction of a handful of juniper berries. Keep the cow within till well.

Watch, and put the afterburden, or cleaning, out of the cow's reach, as their devouring it is sometimes attended with nearly as bad effects as its retention. The beast more usually lingers a great number of months. Symptoms, staring of the hair, falling away of the flesh, intermittent pulse, shuddering, coldness of the ears, fetid breath, knots in the mouth, general languor and debility. The old leaches called this "wethering." This malady may be treated successfully as follows: Warm lodging. Gentle currying and brushing, twice a day, permitting the cow to walk about in the day time, if fine. Good hay, mashes, cordial, *&c.* as before. In the morning fasting, the following mixture, in three pints strong decoction of pennyroyal, gruel, or ale: *Elixir Proprietatis*, compound tincture of castor, and *Spiritus Volatilis Aromaticus*, of each a table spoonful, or more, three successive mornings. Should the beast be costive, a single drachm or two of the finest aloes, in powder, may be added to one of the drinks. Repeat occasionally, if needful. The cow to be sucked dry, not milked.

For a violent puerperal fever, called by DOWNING, *dropping* after calving, he advises the following medicine, in a decoction of fever-few, balm, and chamomile, to be repeated every twelve hours: Nitre powdered, two ounces; rub it in a mortar, with a tea spoonful of oil of vitriol; then add valerian, one ounce and half; snake-root, one ounce; treacle, half a pound. A pint of the decoction of the herbs, sweetened, every two hours. Keep the cow warm with proper covering. Back-rake, if needful. Place her with the fore-parts elevated. Thick gruel or milk-pottage. Constant attendance night and day.

Inward Bruises, from extracting the Calf. Spermaceti, and Irish slate, two ounces each; Castile soap, and diapente, one ounce each; in a quart of warm ale, daily. Or, the same made into balls with Venice turpentine. Warm water and mashes.

Want of Milk. The drink and treatment recommended in colds. Or, fennel, anniseeds, and grains of paradise, two or three ounces, in warm ale, sweetened with Spanish juice; repeat.

Veterinary Obstetrics. The disciples of MAURICEAU, BRACKEN, SMELLIE, and DENMAN, need not be at a loss here to direct the operations of the leach or hind; analogy is a sufficient guide. Cows, particularly the short-horned species, often need the assistance of the accoucheur. The natural presentation of the calf, is with its head and fore-feet, the nose between the feet, and the back upwards. DOWNING enumerates seven preternatural positions: namely, 1st. Reverse presentation, or tail first. 2d. Fore-feet, no head appearing. 3d. Sidewise, belly upwards, head reversed over one shoulder, legs appearing. 4th. Fore-feet, with head under the brisket. 5th. Head alone, or one fore-leg only, with it. 6th. Head and one leg, or head alone. 7th. Calf lying on its back, its four legs folded nearly together, and close up to the cow's back, the head appearing, or doubled back, even with the ribs, on one side or other; one hind-leg, perhaps, presenting.

General Rules. Timely assistance, before the cow is exhausted. Extraction never to be attempted in an improper position. Supple the hand and arm with warm water and fresh lard. Examination best made, the cow standing, and in the interval of pains. In pulling at the feet, inclose the claws in the hand, that the horn may not bruise the cow. Navel string bursting, and the usual flux of blood, of no consequence. Instruments to be used only in the last resort, and by experienced and steady persons only. The proper hook, is of hard iron, four inches long, with a loop for the cord at the straight end.

In a Natural Position, if the cow should want help, the position of the calf may be ascertained after the waters have been seen. A cord ought to be in readiness, to attach to the fore-legs of the calf, in order to assist each natural exertion. The head to be kept clear of obstruction.

Preternatural Position, No. 1, as above. No attempt to turn the calf (this position being favourable for extraction) but use expedition for fear it be suffocated. Press the haunches back with the palm of the hand, take hold of the bend of the hock of one leg, pull at it, and reach the foot; both feet may thus be brought forth.—No. 2. Reduce the head to its proper situation, between the fore legs, either by hold of the nose, or jaw-bone. A long arm is needful, which must be kept to the full extent in the body, that instant advantage may be taken of every throe, the fingers being properly fixed.—No. 3. Gently move the calf back, and bring the head forth to the legs.—No. 4. Push the calf back to find the head; pull at the nose: this requires address, but it is useless to employ force, until the head be in its proper place.—No 5. and 6. Push the calf back against the shoulders and brisket; the feet will be found folded under the belly, bring the feet forward one at a

 time,

time, the hand being gently placed on the bend of the knee. Should the head be too much swelled and bruised, to be returned, it must be skinned and amputated. Dissect in a straight line, from the poll to the nose, force the skin back over the first joint of the neck, divide the head from the body, pushing the latter back to obtain hold of the knees. The loose skin must be previously wrapped over the ragged bone, and an assistant should have fast hold, in order to guide it clear of the haunch-bones of the cow; should it hitch there, put back instantly—No. 7. If one hind-leg appear, put it back; the calf cannot be brought forth with a hinder and fore-leg together, and the difference between the knee and hock, will be immediately discovered. The head being doubled back, must of course be reduced to its proper place. The cow being strong and quiet, the business may be effected with care and patience; but should the hook be positively necessary, hold must be taken, either in the sockets of the eyes, cavity of the ears, or in the jaw. Keep steady until fair hold be taken. The case of *Dropsy* in the calf, will be sufficiently apparent by its preternatural size; use the knife carefully, should that be necessary, to pierce the belly of the calf. For these rules, I repeat, I am obliged to Mr. DOWNING, to whose professional abilities, I think they do great credit.

Suckling. The common error of the nursery universally prevails in the calf-pen. Calves are either allowed too much milk, or their stomachs are overcharged with too great a quantity at a time; hence their digestive faculty is overpowered, thrift is impeded, and a state of disease induced, the most common symptoms of which are, alternate purging and costiveness. Perhaps twice a day is too seldom, and it would probably pay the extra trouble, to suckle three times. The calf kept so many hours from the teat, often, in winter-time, sixteen, greedily swallows an immense quantity of milk, sinks down to sleep, wakes with the disagreeable consequences of an over-loaded stomach, belching up a scalding acid liquor, and remains restless and bleating for a fresh supply, and a repetition of the error. Many people milk the cow first, which is bad practice, the last milk being the richest, and not so proper for the calf. We have here the reasons for the frequent sourness of veal, and for its producing curds and whey, instead of rich and wholesome gravy.

Costiveness in Calves. Take the chalk from them. Give half an ounce, to an ounce of magnesia, with the same quantity of anniseeds powdered in a pint of warm gruel, the powders being well mixed in it. This may be given occasionally, obstruction being a great enemy to thrift. OR. Rhubarb and magnesia may be given, equal quantities. I have repeatedly seen the good effects of this practice.

Purging Calf. I must differ totally from Dr. DOWNING in this case, for reasons already assigned. He advises for a dose, chalk, pomegranate, bole, and alum, to the amount of four or five ounces. I have no idea that articles of that class, can do any thing but mischief to a sucking animal. I would recommend rhubarb, and a table spoonful or two of peppermint water, in warm ale. Afterwards if necessary, two drachms of diascordium, in ale, for two or three days. Rice gruel. This failing to have an immediate good effect, the butcher's knife is the most profitable remedy.

HORNS OF A DEER CASTING, is a singular phænomenon, the true reason of which seems to be a stoppage of the circulation; so that being deprived of the nourishing juice, they fall off much in the same manner as the leaves of the trees do in autumn. About ten days after the horns are cast, the new ones begin to appear: these at first are soft and hairy, but they afterwards grow hard, and the creature rubs off the hair.

HORN-GELT. A tax within the bounds of a forest, for all manner of horned beasts.

HORSE. A four-footed animal of great use to mankind, especially in the country; this creature being by nature valiant, strong, and nimble; above all other beasts, most able and apt to endure the extremest labours, the even quality of his composition being such, that neither extreme heat dries up his strength, nor the violence of the cold freezes the warm temper of his moving spirits: he is most gentle and loving to man, apt to be taught, and not forgetful when an impression is fixed in his brain, being watchful above all other beasts, and will endure his labour with an empty stomach. He is naturally given to cleanliness, and has an excellent scent, even not so much as to offend any man with all his ill savours. For the different symptoms of sickness, *see* SICKNESS OF HORSES.

Now for his shape in general; the usual character is, that he must have the eyes and joints of an ox, the strength and foot of a mule, the hoofs and thighs of an ass, the throat and neck of a wolf, the ear and tail of a fox, the breast and hair of a woman, the boldness of a lion, the shape and quick sightedness of a serpent, the face of a cat, the lightness and nimbleness of a hare, a high pace, a deliberate trot, a pleasant gallop, a swift running, a rebounding leap, and to be present and quick in hand.

As to his colours, the reader is referred to the article of COLOURS OF A HORSE; only it is fit to mention here, that the best colours are the brown-bay, dapple-grey, roan, bright-bay, black with a white near foot behind, white fore-foot before, white star, chesnut or sorrel with any of these marks, or dun with a black list.

But to return to the more particular parts of a horse, and so set them in view, we shall present the reader with a general description of the external conformation of the horse, grounded upon just principles of theory, and confirmed by experience. By a general description we would be understood to intend such an one, as is equally applicable to the racer, and the cart-horse. In laying down certain rules, as the standard of beauty and proportion in horses, human judgment has, no doubt, been guided by the observation of the best natural models; these have been originally furnished by the coursers of Arabia, according to all history and tradition, the oldest breed in the world, and proved, from all experience, to be the best shaped.

The head of a horse should be void of flesh, and for length and size, appear to hold fair proportion with the size

fize of his body; his eye full, and fomewhat prominent; eye-lids thin and dry; ears thin, narrow, erect, of middling length, and not diftant from each other; forehead flat, not too large or fquare, and running nearly in a ftraight line, to the muzzle, which fhould be fmall and fine; noftrils capacious; lips thin; mouth of fufficient depth, and the tongue not too large; the jaw-bones wide at top, where they join the neck; the head not abruptly affixed to the extremity of the neck, but with a moderate curve and tapering of the latter.

The neck muft be of moderate, not too great length, nor too thick and grofs on the upper part, nor too large and deep, but rifing from the withers or forehand, and afterwards declining and tapering at the extremity, it will form fomewhat of an arch; underneath, the neck fhould be ftraight from the cheft, and by no means convex, or bellying out.

The fhoulders capacious, and of large extent, fo as to appear the moft confpicuous part of the body, but without being loaded with flefh; they fhould reach fairly to the top of the withers, which muft be well raifed; the cheft fhould be fufficiently full, not narrow or pinched.

The body deep and fubftantial; back a plane of good width, but handfomely rounded; back-bone ftraight, or with a trifling inclination, and not too fhort; loins wide, and the mufcles of the reins, or fillets, full, and fwelling on each fide the back-bone; the fpace fufficient between the ribs and hip-bones, the bones themfelves round, and the buttocks deep and oval; the rump level with, or not too much elevated above, the height of the withers; the croup muft have reafonable fpace, and not fink too fuddenly, in which cafe, the tail would be fet on too low, which ought to be nearly on a level with the back.

The hinder quarters fhould fpread to a wider extent than the fore-parts, and the hind-feet ftand farther afunder than thofe before; the thighs fhould be ftraight, large, mufcular, and of confiderable length; the hock wide and clean, the fhank not too long, but flat, and of fufficient fubftance, its finew large and diftinct, the fetlocks long; the hocks fhould form an angle, of fuch extent, as to place the feet immediately under the flanks. The fore-arms, like the thighs, fhould be large, mufcular, aud of good length, the elbows not turning outwards; the knees large and lean; the fhank, or cannon-bone, flat, ftrong, and not too long; the tendon large; the fore-arm and fhank, muft form nearly a ftraight line: fetlock-joints large and clean; pafterns inclining to a certain degree, not too long, but large in proportion to their length; the coronary rings not thick, or fwelled, but clean, dry, and hairy; the feet neither too high, nor too flat, and of fize apparently a fufficient bafe for the weight they have to fuftain; hoofs of colour dark and fhining, without feams or wrinkles, tough and ftrong, not hard like oak; foot internally concave, foal hard, but not fhrunk, heels wide, and of middling height; frog not too large or fleffhy, but tough and found; the feet of equal fize, fhould ftand exactly parallel, fo that the front or toe incline neither inward nor outward; the fore-feet fhould ftand perpendicular to the cheft, not too much under it, and they fhould be lefs wide apart than the fore-arms; the legs fhould not be loaded with hair.

The age of a horfe, it is fufficiently well known, is only determinable with precifion by his teeth; and that rule fails after a certain period, and is fometimes equivocal and uncertain, even within that peroid. A horfe has forty teeth; namely, twenty-four double teeth or grinders, four tufhes, or fingle teeth, and twelve front teeth, or gatherers. Mares have no tufhes, in general. The mark, which difcovers the age, is to be found in the front teeth, next the tufhes. In a few weeks, with fome, the foal's twelve fore teeth begin to fhoot; thefe are fhort, round, white, and eafily diftinguifhable from the adult or horfe's teeth, with which afterwards they come to be mixed. At fome period between two and three years old, the colt changes his teeth; that is to fay, he fheds the four middle fore teeth, two above, and two below, which are fome time after replaced with horfes teeth. After three years old, two others are changed, one on each fide the former; he has then eight colt's, and four horfe's teeth. After four years old, he cuts four new teeth, one on each fide thofe laft replaced, and has at that age, eight horfe's, and four foal's teeth. Thefe laft new teeth are flow growers, compared with the preceding; they are the corner teeth, next the tufhes, are called pincers, and are thofe which bear the mark; this mark confifts in the tooth being hollow, and in the cavity bearing a black fpot, refembling the eye of a bean. At four years and a half old, thefe mark teeth are juft vifible above the gum, and the cavity is very confpicuous. At five years old, the horfe fheds his remaining four colt's teeth, and his tufhes appear. At fix, his tufhes are up, and appear white, fmall, and fharp, near about which, is obfervable a fmall circle of young growing flefh; the horfe's mouth is now complete, and the black mark has arrived at, or very near the upper extremity of the corner teeth. At feven, the two middle teeth fill up. Between the feventh and eighth year, all the teeth are filled up, the black mark hath vanifhed, and the horfe is then faid to be aged, and his mouth full.

From that time forward, the age of the horfe can only be gueffed at from certain indications; but thefe gueffes are ufually made with confiderable accuracy by experienced people. If his teeth fhut clofe, and meet even, are tolerably white, not over long, and his gums appear plump, you may conclude he is not yet nine years old. At that age, and as he advances, his teeth become yellow and foul, and appear to lengthen, from the fhrinking and receding of the gums. The tufhes are blunt at nine; but at ten years old, the cavity or channel in the upper tufhes, until that period to be felt by the finger, are intirely filled up. At eleven, the teeth will be very long, black, and foul: but will generally meet even; at twelve his upper-jaw teeth will overhang the nether; at thirteen and upwards, his tufhes will be either worn to the ftumps, or long, black, and foul, like thofe of an old boar. Befides thofe exhibited by the mouth, nature ever furnifhes a variety of fignals, denoting the approach of old age and decay, throughout the bodies of all animals. After a horfe has paft his prime, a hollownefs of his temples will be

 perceived,

perceived, his muſcles will be continually loſing ſomething of their plumpneſs, and his hair that gloſs and burniſh, which is the characteriſtick of youth and prime; it will look dead, faded, or entirely loſe its colour, in various parts. In proportion to the exceſs of theſe appearances, will be the horſe's age. For his quality, *ſee* VIGOUR. For the different parts of a horſe, *ſee* the article PARTS OF A HORSE.

There are many things relating to a horſe, and very neceſſary to be known, which will be found under their proper articles; only there are a few which are not ſo conveniently reducible under ſuch heads, which muſt have room here.

To begin with turning a horſe to graſs: you ought, eight or nine days before you do it, to take blood from him; next day after, give him the drink called diapente; and in a day or two after his drink, abate of his cloaths by degrees, before you turn him out, leſt by taking them off on a ſudden he ſhould take cold; and curry him not at all after his cloaths are taken off, but let him ſtand in his duſt, for that will keep him warm; neither is it proper to put him out till the middle of *May* at ſooneſt; for till that time graſs will not have bite enough; and let the day be warm, ſun-ſhine, and about ten o'clock, for horſes pampered in ſtables, and kept cloſe, will be very ſubject to take cold.

To take him up from graſs, he muſt be very dry, elſe he will be ſubject to be ſcabby; and that not later than *Bartholomew-tide*, when the ſeaſon begins to let cold dews fall, that cauſe much harm to your horſe; and then alſo the heart of the graſs begins to fail, inſomuch, that the graſs which he then feeds upon, breeds no good nouriſhment, but groſs, phlegmatic, and cold humours, which putrify and corrupt the blood; alſo take him up very gently, for fear of melting his greaſe, his fat gotten at graſs being very tender: and a day or two after he is in the ſtable, let him be ſhod, let blood, and drenched, which will prevent the ſtaggers, yellows, and the like diſtempers, occaſioned by the gall and ſpleen, which the heart and ſtrength of the graſs, through the rankneſs of the blood, engender in the body.

But the curious, after they have taken the horſe into the ſtable, before they either bleed or drench him, in a hot, ſun-ſhining day, take him out into a convenient place, and there trim him; where taking ordinary waſhing ſoap, anoint his head and every part of him with it all over, taking care that none gets into his eyes and ears; then they waſh him very well all over with warm water, wiping him with a warm linen cloth, and afterwards rubbing him dry with woollen cloths; then ſoap him all over again, eſpecially his mane and tail, and waſh him very clean with black lye, with a wiſp or woollen cloth, and when they have ſufficiently cleanſed him, dry him as before, and leading him into the ſtable, let him be cleanſed with a clean, thin, ſoft cloth.

So much for turning in and out of graſs. There are two or three things more to be added, that are of ſome importance in reference to this noble creature; and the firſt is, to make a horſe follow his maſter, and to find him out and challenge him amongſt ever ſo many people.

Take a pound of oatmeal, to which put a quarter of a pound of honey, and half a pound of liquorice, make a little cake thereof, and put into your boſom next to your naked ſkin, then run and labour yourſelf till you ſweat, when ſo, rub all your ſweat upon your cake; then keep the horſe faſting a day and a night, and give it him to eat, which done, turn him looſe, and he ſhall not only follow you, but alſo hunt and ſeek you out when he has loſt you; and when he comes to you, ſpit in his mouth, anoint his tongue with your ſpittle, and thus doing, he will never forſake you.

Another thing is, to ſhew how to make a horſe look young: take a crooked iron, no bigger than a wheat corn, and having made it red hot, burn a little black hole in the tops of the two outermoſt teeth of each ſide the nether chap before, next to the tuſhes when the mark is worn out, then pick it with an awl blade, making the ſhell fine and thin: then with a ſharp ſcraping iron, make all his teeth white and clean; this done, take a fine lancet, and about the hollows of the horſe's eyes which are ſhrunk down, make a little hole only through the ſkin, and put in the quill of a raven or crow, and blow the ſkin full of wind; then take the quill out, lay your finger on the hole a little while, and the wind will ſtay in, and he will look as youthful as if he were but ſix years old.

This way of making a horſe look young, is by horſe-courſers called biſhoping, and is neceſſary to be known by countrymen and others, not to cheat others with, but to prevent their being cheated themſelves; and therefore they ſhould have great regard to the RULES FOR BUYING HORSES, which is an article by itſelf, and to which all perſons are referred.

HORSE, that is really Old, to make him ſeem Young, as practiſed by jockeys.

Rub his teeth with pumice-ſtone, and the powder of burnt alum; this will render them white; take a ſmall iron, with which, being crooked for that purpoſe, burn in the tops of the two foremoſt teeth ſmall holes, ſo big that a wheat corn may enter on each ſide of the nether jaw; and on the tuſhes do the like, fining them with a bodkin till the black ſcale come off, and the teeth in that place look brighter than in another; when done, if the pits above the eyes be hollow, with a ſharp penknife or lancet ſlit the ſkin, being before raiſed, and hollowing it as much as you can by working of your fingers, put into the ſlit a duck or crow quill, and blow them up one after another, that the hollowneſs may fill with wind; which, entering into the cavities of the ſkin, will, after having been ſtopped up for a time with a plaſter of diaculum or bees wax, fix there, till by ſweat or extraordinary labour it works out; if the temples are crooked with a ſign of age, lay to either of them a poultice of hemlock and chamomile fried in linſeed oil; and it will ſo far contract the blood to fill them, that for many days they will appear ſtraight: and then for the hoof, which in caſe of age will be ſeamed or rugged, take a raſp or file, and, having well ſmoothed it, anoint it well with oil of turpentine for a day or two, and it will look very comely; but in this caſe the horſe muſt be diſpoſed of within a week at the fartheſt, or elſe the defects will appear again.

HORSE subject to lie down in the water, how to remedy it.

In this case you must consider the horse to be of a hot constitution, begotten or produced under the fiery signs of Leo and Scorpio, or else much overheated with choler, and therefore ever desirous to cool himself, and thereby rendered in a manner unserviceable; which vice to remedy, ride him into the water up to the knees, and suffer him to lie down; then, having three or four stout fellows ready with boots on, let them seize his head, and hold it under water, whilst another beats and belabours him; and this do till you find the horse almost stifled; and, in repeating it three or four times, the terror of it will so work, that the horse will fly from the water more than ever he coveted it, and hardly suffer himself to be watered, unless in a pail or trough. This likewise may be remedied by bleeding and purging your horse spring and fall, whereby the humours that occasion the extraordinary heat and disorder may want whereon to feed or contract, losing the power and force of inflaming his body, &c.

There may be other lawful occasions, besides service of war, to prevent a horse from neighing; for which end, take a list of woollen cloth, and tying it fast in many folds about the midst of his voice, or windpipe, and it will do, for it has been often tried and approved. *See* MARES, HORSE-FEEDER, TRAVELLING-HORSE, DRAUGHT-HORSE, STALLIONS, HORSE'S AGE, COLOURS OF A HORSE, COLT-TAMING, STUD, *&c.* You will likewise meet with the several diseases incident to horses, under their articles, together with the several methods and prescriptions for the cures, too long to be here named. For his vices, and how they may be remedied, *see* VICES.

As for the size of horses, perhaps sixteen hands ought to be the extreme, for whatever purpose, either of saddle or draught. All possible advantages may be concentered within that compass, and numberless disadvantages resulting from over-size, avoided. It has been said, that "a great, good horse, will beat a little one;" and there is no doubt, but where the goodness, in all points, is equal, the largest must be the best; but we generally find, in all animals, that as they advance beyond the usual standard, they lose in symmetry, in proportion as they gain in bulk. It is rare to see a man, of six feet six, well shaped. Among horses, perhaps, the smallest size, or ponies, are, upon the average, of the truest make.

A hunter, or charger, should be between fifteen hands, and fifteen three. It is obvious, that in the field, low horses can never clear their leaps so well, or carry a man so gallantly over the country, as those of a commanding size. The most advantageous height of a back, is between fourteen and fifteen hands one inch. A lady's horse, either for road, or field, should never exceed fifteen. The convenience of ponies and galloways, for the summer season, and their inconvenience, in deep roads and dirty weather, are in the way of every body's observation.

It is a truth, like numberless others, much better known than practised, that horses should never be put to severe labour whilst young. Our doing so much violence to their strength, in this country, whilst their sinews are yet too flexible and tender, and have not acquired due substance and tensity, is the occasion of their growing old so soon, and becoming, at such a premature period of their lives, totally unfit for any but the lowest drudgery.

Horses, for slow-draft (the least injurious of all their labour) may be put to gentle work, in careful hands, even at two years old, without sustaining any injury; and it is the custom of the country: but great care ought to be taken, never to put them upon long and heavy jobs, or subject them to heats and colds, and piercing winds; and, in particular, not to strain them at dead pulls; for amongst an infinity of accidents, to which, in that green age, they are liable, hurts in the loins are to be apprehended, from which they never after recover. Every body will tell you, that road-horses and hunters should not be worked until five years old; and it is most true: the latter, indeed, ought not to endure many severe runs, the first season. But it is not enough, that young horses are not worked hard; that is to say, ridden fast, or long journeys; for whatever bone they may have, no high weight ought to come upon their backs, until they have attained, at least, five years growth. From the improvident custom of over-weighting them too early, even if they are ridden slow, arise windgals, splents, spavins, weakness of the joints, and that common tribe of defects, which are the consequence of over-stretched ligaments. *See* PARTS OF A HORSE.

HORSE-FEEDER. There are many observations to be made by one engaged in this office, in order to perform it well, especially when he has the care of running-horses, but we shall only mention a few.

1. As to meat or drink, if there be any such, or other nourishment that he knows good for a horse, which the beast refuses, you must not thrust it violently upon him, but by gentle enticements win him thereto, tempting him when he is most hungry or most dry; if he get but a bit at a time, he will soon increase to a greater quantity.

Ever let him have less than he desires; and that he may be brought the sooner to it, mix the meat he loves best with that he loves worst, till both be equally familiar, so shall he be a stranger to nothing that is good and wholesome.

2. If he finds a horse subject to stiffness and lameness, to the surbate, or to tenderness of feet, then he should give him his heat upon smooth, carpet earth, or forbear strong grounds, hard highways, cross-ruts and furrows, till extremity compel him.

3. For the condition of a horse's body, he must account the strongest state which is the highest and fullest of flesh, so it be good, hard, without inward foulness, to be the best and most proper for the performing of matches: and herein you must consider, first, the shape of a horse's body, there being some that are round, plump, and close knit together, which will appear fat and well shaped, when they are lean and in poverty; while others that are raw-boned, slender, and loose knit, will appear lean and deformed, when they are fat, foul, and full of gross humours.

So

So likewise for their inclinations; for some horses at the first, feed outwardly, and carry a thick rib, when they are inwardly as lean as may be; whereas others appear lean to the eye, when they are only grease.

In which case the feeder has two helps to improve his knowledge, the outward and the inward one.

4. The first is, the outward handling and feeling the horse's body all over his ribs, but particularly upon his short and hindermost ribs, and if his flesh generally handle soft and loose, and the fingers sink therein as in down, he is foul without all question; but if it be hard and firm, and only soft upon the hindermost rib, he has grease and foul matter within him, which must be voided, whatever comes of it. And for the inward help, that is only sharp exercise, and strong scowering, the first to dissolve, and the latter to bring it away.

5. It is the feeder's business to observe the horse's stones, for if they hang downwards, or low from his body, he is out of lust and heart, and is either sick of grease or other foul humours; but in case they lie close trussed up, and hid in a small room, then he is healthful, and in good plight.

6. As to his limbs, the feeder or groom must ever before he runs any match or heat, bathe his legs, from the knees and gambrels downwards, either with clarified dog's-grease, trotter-oil, or the best hog's-grease, and work it in well with his hands, not with fire, for what he gets not in the first night, will be got in the next morning, and what is not got in then, will be got in when he comes to uncloath at the end of the course; so that the ointment need be used but once, but the rubbing as often as there is opportunity.

7. The feeder may in any of the latter fortnights of a running horse's feeding, if he finds him clear, and his grease consumed, about six in the evening, give him water in a reasonable quantity, made luke-warm, keeping him fasting an hour after: also, if through the unseasonableness of weather you cannot water him abroad, then at your watering hours you are to do it in the house, with warm water, and a handful of wheat-meal, bran, or oatmeal, finely powdered (which last is the best) put into the water, which is very wholesome.

8. He must have special regard to all airing, breathings, and other exercises whatever; to the sweating of the horse, and the occasion, as walking a foot-pace, standing still in the stable, and the like; this shews that the horse is faint, foul fed, and wants exercise: but if upon good occasions, as strong heats, great labour, and the like, he sweat, and it is a white froth like soap-suds, he is inwardly foul, and also wants exercise: again, if the sweat be black, and as it were only water thrown upon him, without any frothiness, then he is cleansed, and in good lust, and good case, and may be rid without any danger.

9. And lastly, he should observe his hair in general, but especially on his neck, and those parts that are uncovered, for if they lie sleek, smooth, and close, holding the beauty of their natural colour, the horse is in good case; but if rough and staring, or discoloured, he must be inwardly cold at heart, and wants both cloaths and warm keeping.

DRESSING A HORSE. Mr. Lawrence in his excellent treatise on horses, gives the following extract from an old and experienced author. Having tied up the horse's head, "take a curry-comb, and curry him all over his body, to raise the dust, beginning first at his neck, holding the left cheek of the head-stall in your left hand, and curry him from the setting on of his head, all along his neck, to his shoulder, and so go all over his body to the buttocks, down to his cambrell-hough; then change your hands, and curry him before on his breast, and laying your right arm over his back, join your right side to his left, and curry him all under his belly, near his fore bowels, and so all over very well, from the knees and cambrell-houghs upwards: after that go to the far side, and do in like manner. Then take a dead horse's tail, or a dusting cloth of cotton, and strike that dust away which the curry-comb hath raised. Then take a round brush, made of bristles, and dress him all over, both head, body, and legs, to the very fettocks, always cleansing the brush from that dust which it gathereth, by rubbing it upon the curry-comb.

"After that take a hair-cloth, and rub him again all over very hard, both to take away the loose hairs, and to help to lay his coat; then wash your hands in fair water, and rub him all over with wet hands, as well head as body, for that will cleanse away all those hairs and dust the hair-cloth left. Lastly, take a clean cloth and rub him all over till he be very dry, for that will make his coat smooth and clean.——Then take another hair-cloth (for you should have two, one for his body and another for his legs) and rub all his legs exceeding well from the knees and cambrell-houghs downwards, to his very hoof, picking and dressing them very carefully about the fettocks, from gravel and dust, which will lie in the bending of his joints."

Nothing can be more obvious, than the great benefits derived to the animal system from the factitious exercise of this friction, which at once seconds the intentions of nature, by aiding the general circulation, and cleanses the external surface from all impurities; it is said to be equally beneficial to the operator, and the labour of grooming has been warmly recommended by physicians to asthmatic patients, or those who labour under the defects of a confined chest and impeded respiration. Without regular grooming, it is vain to expect a horse will exhibit himself in his most beautiful colours, or be capable of his utmost exertions; in a word, that he will be in high condition.

Care should be taken (by the master I mean) that the curry-comb be not too sharp, or at least not used in a rude and severe manner, so as to be an object of torture and dread, instead of delight and gratification to the horse. It is too often the fate of thin-skinned horses, to suffer much from the brutality of heavy-handed and ignorant fellows, who punish with hard blows every motion the irritated animal is necessitated to make, looking upon him as a mere machine, which is destined to undergo all kinds of inflictions.

HORSE-HAIR NOOSES, are devices to take birds by the neck or legs, sometimes by both; the most proper places for that purpose, being amongst bushes and small coppices, and the manner thus:

Make little hedge-rows, about half a foot high, by sticking small furze-bushes, brambles, or thorns, &c. in direct or crooked lines, of such a length and number as you think fit, according to the game you suppose the place may afford; and then at several distances, leave little open spaces big enough for the birds to pass through. The letters A, B, C, shew the passages or void spaces, in every one of which you must fix a short stick, of the bigness of one's finger, and tie thereto a noose of horse-hair, finely twisted, with a slip-knot, that the fowl endeavouring to pass through may draw it upon his neck, and so be strangled. *See* Plate VII.

But for woodcocks, the springs are to be laid flat on the ground, to catch them by the legs; and good store of partridges may also be taken by these devices, set across a ploughed furrow, in the bottom, in case there be any in the field. *See* Plate XVIII.

HORSES KIDNIES DISORDERED. Many are the diseases to which the kidnies are subject, such as inflammation, obstruction, ulceration, relaxation, &c. whence suppression of urine, diabetes, bloody urine, &c. but the gravel and the stone very rarely, if ever, affect horses, notwithstanding some directions are given for these complaints in case of an instance thereof occurring. These diseases which do often disorder the kidnies, if they continue long are usually dangerous, particularly if the horse grows feeble, if blotches which turn into scabs appear, or if his appetite continue to fail.

An usual weakness in the loins; foul or bloody urine discharged with difficulty; loss of appetite; faintness, if put to any exercise; when he is put to step backward, if it occasions a considerable degree of pain, easy to be observed by a by-stander; any or all these indicate some degree of fault in the kidnies. The last symptom happens when a horse's back or loins have been strained, but it is then unattended with either the loss of appetite or flesh; or the disordered appearances in the urine, except now and then, that it is rather more high coloured than is natural to a healthy state.

If the difficulty of staling be attended with much fever, an inflammation in the kidneys may be suspected. If the urine is not freely discharged, but is foul, dark coloured, or fœtid, and has a red or purple coloured sediment, on standing a little while, there is an ulcer in the kidney, which will gradually destroy the horse; in the milder kind of ulcers, the sediment hath the appearance of good pus or matter, from the surface of a wound, only mixed with blood, which distinguishes it from the matter which is discharged from an ulcer in the bladder, which is without or with very little blood, and that, darker coloured than that which arises from the kidnies.

In all disorders of the kidnies, violent exercise and heavy burdens should carefully be guarded against. Young horses have frequently a weakness in their kidnies; in which case if care is not had to exercise nor to load them too freely, and to feed them regularly and tolerably well, until they are six or seven years of age, they will outgrow this infirmity; but neglect hereof will be their destruction.

To relieve these complaints, if there is any degree of fever, bleed according to the strength and condition of the horse, and give the cooling medicines directed for fevers: the heat being moderated, and his belly tolerably lax, give the following: If there is no fever, nor tendency to inflammation, the bleeding may be omitted; in its stead put a rowel under the belly, then proceed as follows:

Diuretic Balls for diseased Kidneys.

Take balsam-capivi, Venice-soap, and nitre, of each one ounce; beat them well together, and form them into a ball, which repeat every four, six, or eight hours, until the urine is freely discharged and recovers a more healthy appearance: let his drink be water, in which parsley or marshmallow roots have been boiled, with four ounces of nitre in each gallon.

HORSE-LOCK AND KEY, an instrument to open a horse's fetter, or chain-lock.

It is a square iron plate, bent at one end, having a square hole and nicks in one part of it, to answer the springs and wards within the bolt; the other end is bent half round, with a small turn at the end to make it look handsome.

HORSE-MEASURE, a rod of box to slide out of a cane, with a square at the end, being divided into hands and inches, to measure the height of horses.

HORSE SHOE; of these there are several sorts: 1. That called planch-shoe or pancelet, which makes a good foot, and a bad leg, by reason it causes the foot to grow beyond the measure of the leg; though for a weak heel it is exceeding good, and will last longer than any shoe, being borrowed from the moil, that has weak heels and frushes, to keep the feet from stones and gravel.

2. Shoes with calkins, which though they be intended to secure the horse from sliding, yet they do him more harm than good, so that he cannot tread evenly upon the ground, whereby many times he wrenches his foot, or strains some sinews, more especially upon stony ways, where the stones will not suffer his calkins to enter, the foot slips with more violence; though some do not think a horse well shod unless all his shoes be made with calkins, either single or double; however, the double ones are less hurtful, for he will tread evener with them than with single calkins, but they must not be over long, or sharp pointed, but rather short and flat.

3. There are shoes for rings, which were first invented to make a horse lift his feet up high. Though such shoes are more painful than helpful, and it is an unpleasing sight; this is used for horses that have not sound hoofs, for tender feet fear to touch the ground that is hard: but what is intended for a remedy, proves a prejudice to the horse, by adding high calkins, or else these rings to his shoes, for by that means he is made to have weaker heels than before.

4. Shoes with swelling welts, or borders round about them,

them, are used in *Germany*, *&c.* which being higher than the head of the nails, save them from wearing; and these are the most lasting shoes, if made of well tempered stuff, for they wear equally in all parts, and the horse treads equally upon them.

5. Others that use to pass mountains where smiths are not so easily to be met with, carry shoes about them with vices, whereby they fasten them to the horse's hoof without help of the hammer or nail, notwithstanding it is more for shew than any good service: for though this sort of shoe may save his feet from stones, yet it so pinches his hoof, that he goes with pain, and perhaps injures it more than the stones do; therefore upon such emergent occasions, it is better to make use of a joint-shoe which is made of two pieces, with a flat rivet-nail joining them together in the toe, so that you may make it both wide and narrow to serve any foot.

6. The pastern-shoe is necessary for a horse that is burnt in the hip, stiffle, or shoulder, which will cause him to bear upon that leg where the grief is, and consequently use it the better.

7. A shoe proper for flat feet.

8. The panton or patable-shoe, which opens the heels, and helps hoof-binding.

These are of admirable use, in regard that they never shift upon the feet, and continue firmly in one place.

2. And lastly the half panton shoe.

HORSEMANSHIP. Mr. LAWRENCE says it is rather a hazardous task for an author to say any thing serious on this subject after Mr. BUNBURY's exquisite *Burlesque of Geoffrey Gambado*; which has convulsed all those of the present time who have any tolerable portion of the animal risibile in their composition. One would wonder how there could be any unskilful or barbarous horsemen in England, since such judicious and humane rules have been long time attainable for the moderate sum of one shilling, in the truly excellent pamphlet of Professor CHARLES HUGHES. But thus it is; neither the light but poignant shafts of ridicule, nor the sage admonitions of pains-taking authors, are able to prevail upon the bulk of people to become good jockies. Hear old BLUNDEVILLE upon this affair:—"Of which knowledge, what lacke we English haue had, and speciallie haue at this present, is best seene at a muster, when the Queene's Maiestie hath need of horses and horsemen, where oftentimes you shall see some that sit on their horses like wind-shaken reeds, handling their hands and legs like weauers: or if the horseman be good, then the horse for his part shal be so broken, as when he is spurred to go forward, he wil go backward: and when his rider would haue him to turne on the right hand, he will turne cleane contrarie: and when he should stop he will arme himselfe, and run awaie, or else stop sooner than his rider would haue him, or use such like toies." Hear farther the warm-headed, but well-meaning MICHAEL BARET:—"Also, hee must carry his body upright, neither yeelding too farre backe (as if hee were pulling at a great tree, nor too forward as if hee were asleep, for these two motions serve to other ends (as hereafter shall be showne) neither to sit on one side, like a crab, or to hang his body ouer as if he were drunken, as I have seen some horsemen doe. Neither ought he to carry his legs so close to his horse's sides, that hee cannot give any motion therewith, except hee first thrust them forth.—Neither must he carry his legs (out) staring like stilts (without joynts, as Saint George painted on horse-backe) before his horse's fore-shoulder," *&c.*

Some you will see, who, under *the mistaken notion*, that it is the go, to lean forward, because they have seen something like it, at a race; hang quite over their horses necks: these equestrians make a small mistake, by bending at the hip-joint instead of the middle of the spine, which, by protruding their postic parts, gives them the semblance of being just in the act of offering an oblation to the necessary goddess. Others thrust their legs out from the horses sides, in defiance of all ordinary gate-ways.

The modern seat on horse-back, and it seems to have owed its establishment to reason, confirmed by experience, is, to set naturally and easily upright upon your saddle, as you would in your chair; your knees about as much bent, and turned inward, your toes somewhat out, and upward, your leg falling nearly straight, and your foot home in the stirrup; your back-bone prepared to bend in the middle, upon occasion, your elbows held close to your sides, your hands rather above the horse's withers, or the pommel of the saddle, and your view directed between his ears. This is the true turf or Newmarket seat.

The decline of Riding-house forms in this country, and the universal preference given to expedition, fully confirm the superior use and propriety of a jockey-seat. Indeed, our riding-schools are now considerably reformed from the stiffness of ancient practice, in all respects. But the reader, on a reference to HUGHES's publication, will find we do not entirely agree in all points. It was the practice formerly in the schools, and, indeed, pretty generally upon the road, to ride with the tip of the toe only in the stirrup; as if it were of more consequence to prepare for falling with safety, than to endeavour to sit securely. Those who preserve a partiality for this venerable custom, we would advise to suspend a final judgment, until they have made a few more essays upon a huge, cock-tail half-bred; of that kind, which "cannot go, and yet won't stand still;" and will dart from one side of the road to the other, as if they really desired to get rid of their burden. Nor is the ball of the foot a proper rest; chiefly, because inconvenient to that erect, or rather almost kneeling posture, which is required in speedy riding. The riding-house seat is preserved, by the balance or equipoise of the body, solely; that recommended here by the firm hold of knee, which is obviously strengthened by the opposite directions of the knee and toe, the one in, the other outward. The use of a fixed seat is to enable the rider to give his horse the proper pulls, without which every experienced jockey knows he can neither go steadily and well, nor last his time. It is not the custom of the schools to spur the horse with a kick; but spurring is always so performed, upon the road and field; as the military mode of giving that correction would quite derange a jockey-seat, and would be on other accounts inconvenient.

St. Bel, had he lived, intended to have presented us with an essay upon English equitation; a subject, wherein he would have failed, from a want of practical experience.

There are many persons unaccustomed to riding on horseback, who, when they occasionally mount, are very justly anxious both for their personal safety, and their appearance. It is for the benefit of these we write. If they will immediately adopt proper rules, they will not only make a respectable horseman-like appearance, but will place themselves in the line of improvement, and in a situation the best calculated to insure their safety. Instead of being unable to keep their spurs from the horse's sides, they would, with a proper seat, experience considerable difficulty in reaching them. It is too often neglected, even by people who are fond of horses, to teach their children a good seat, thinking it probably quite sufficient if they can but stick fast; and I have seen young gentlemen riding with their fathers, in a very vulgar and unbecoming style.

We cannot speak to the antiquity of the English fashion of rising in the stirrups during a trot, and of preserving time with the motions of the body, in unison with those of the horse; but the knowledge of it is discoverable in Baret, and in no author before him. It would be superfluous to give directions on this practice, which will be instantly acquired by observation and use. The same may be said of the gallop, which is performed, on the rider's part, like certain other pleasant actions, kneeling; the pulling of the horse helping to keep the rider steady. In the canter, the rider sets upon his seat, as in an easy chair. The method of giving the wriggling helps with the bridle, either in the gallop, or swift trot, to encourage a horse forward, must be acquired by practice. The first-rate English horses, and the best examples of horsemanship, are to be seen in Hyde Park; where for many years past, it has been the prevailing custom to take the morning ride, and where no person of decent habit and demeanour is refused admittance.

The following directions for a just seat on horseback, are transcribed from Blundeville, "And see that you do not only sit him boldlie, and without feare, but also conceive with yourself, that he and you do make as it were but one bodie: and that you both have but one sense and one will. And accompanie him with your bodie in any moving that he maketh, alwaies beholding his head right betwixt his eares, so as your nose maie directlie answer his foretop. Which shall be a signe unto you to know therebie, whether you sit right in your saddle or not. And let the ridge-bone of your back be euen with his. And let your left hand, holding the reanes of the bridle, be euen with his creast, and in anie wise keep your thighes and knees close to the saddle, holding downe your legs straight, like as you do when you are on foote. And let your feete rest upon the stirrups in their due places, both heele and toe standing in such sort, as when you shall turne your head, as farre as you can on the one side, without moving your body, and looking downward to your stirrup: you shall perceiue that your toe doth directlie answere the tip of your nose: and according as the saddle is made, so shall you ride long or short. But alwaies let your right stirrup be shorter than the other by half a hole."—

"Likewise his legs must be pendant of an equal distance from the horse's sides, his feete so leuil in the stirrups, as they are, when he walketh on the ground, neither must his stirrup lethers be so long, that his chiefest labour shall be to keep his feet in them (for so a man shall loose his true seat by stretching his legges, as if they were on the tenters) nor so short that he shall be rayfed from his true seate (the pitch of his knees being dislocated from the points of the saddle) nor ought one stirrup to be longer than the other (in my judgment) although many worthy men haue set that order downe. My reason is, in regard the man must haue a true and upright seate, and nature hath made his legges (which are the supporters thereof) one not longer than another, but of an equal length; therefore I cannot see how the body should be kept direct, the legges one of them hanging sider than another."

We shall present the reader with a few useful hints from Mr. Hughes.

"If you would mount with ease and safety, stand rather before the stirrup than behind it; then with left hand, take the bridle short, and the mane together, help yourself into the stirrup with your right, so that in mounting, your toe do not touch the horse. Your foot being in the stirrup, raise yourself till you face the side of the horse, and look directly across the saddle, then with your right hand lay hold of the hinder part of the saddle, and with your left, lift yourself into it.

"On getting off the horse's back, hold the bridle and mane in the same manner as when you mounted, hold the pommel of the saddle with your right hand; to raise yourself, bring your right leg over the horse's back, let your right hand hold the hind part of the saddle, and stand a moment on your stirrup, just as when you mounted. But beware that in dismounting, you bend not your right knee, left the horse should be touched by the spur. Grasp the reins with your hand, putting your little finger between them. Your hand must be perpendicular, your thumb uppermost upon the bridle.

"Suffer him not to finger the reins (the groom, in holding the horse) but only to meddle with that part of the headstall, which come's down the horse's cheek, to hold a horse by the curb, when he is to stand still, is very wrong, because it puts him to needless pain.

"When you are troubled with a horse that is vicious, which stops short, or by rising or kicking endeavours to throw you off, you must not bend your body forward, as is commonly practised in such cases; because that motion throws the breech backward, and moves you from your fork or twist, and casts you out of your seat: but the right way to keep your seat, or to recover it when lost, is, to advance the lower part of your body, and to bend back your shoulders and upper part. In *flying* or *standing* leaps, a horseman's best security is, the bending back of the body.

"The rising of the horse does not affect the rider's seat; he is chiefly to guard against the lash of the animal's hind legs; which is best done, by inclining the body backward. Observe farther, that your legs and thighs are not to be stiffened, and, as it were, braced up, but your loins should be lax and pliable, like the coachman's on his box. By sitting thus loosely, every rough motion

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of the horse will be eluded; but the usual method of fixing the knees, only serves, in great shocks, to assist the violence of the fall. To save yourself from being hurt, in this case, you must yield a little to the horse's motion; by which means you will recover your seat, when an unskilful horseman would be dismounted.

"Take, likewise, particular care not to stretch out your legs before you, because, in so doing, you are pushed on the back of the saddle; nor must you gather up your knees, as if riding upon a pack, for then your thighs are thrown upwards. Let your legs *hang perpendicular*, and sit not on the thickest part of your thighs, but let them bear inward, that your knees and *toes may incline inwards likewise*." We have assigned a reason for the present practice of riding with the knee somewhat bent, and the toe turned in a small degree outward, and upward; and this small deviation will, by no means, affect the general utility of HUGHES's system. He proceeds:—"If you find your thighs are thrown upwards, open your knees, whereby your fork will come lower on the horse. Let the hollow, or inner part of the thighs, grasp the saddle, yet so as to keep your body in a right poise. Let your heels hang straight down, for while your heels are in this position, there is no danger of falling."

The following is an excellent rule:—"If your horse grows unruly, take the reins separately, one in each hand, put your *arms* forward, and hold him short; but pull him not hard with your arms low; for, by lowering his head, he has the more liberty to throw out his heels: but if you raise his head as high as you can, this will prevent him from rising before or behind; nor, while his head is in this position, can he make either of these motions.

"Is it not reasonable to imagine, that if a horse is forced towards a carriage which he has started at, he will think he is obliged to attack or run against it? Can it be imagined that the rider's spurring him on, with his face directly to it, he should understand as a sign to pass it?"—These rational queries, are submitted to the serious consideration of such as are fond of always obliging their horses to touch those objects, at which they are, or affect to be frightened.

It may be remarked, that most of the riding-school gentlemen, are very fond of horses carrying their heads high; a form much more suitable for state and parade, than real business. Almost all the Arabians which come over hither, and which have been worked in their own country, go in that manner. Work indeed will bring the head down, but, perhaps, with the nose pushed straight out. Horses, of this form, are ridiculed by BARET, under the name of Astronomers, and Stargazers.

Indifferent horsemen should never venture on horseback without spurs. Let them reflect upon the predicament, of being placed between a deep ditch, and a carriage at which their horse shies.

There is a circumspection to be adopted advantageously by the unskilful, which will, at first, give them the semblance, afterwards the reality, of good riding. The method of taking a rein in each hand, occasionally (much in use of late years) gives the rider great command over the mouth, neck, and fore-quarters of a horse.

A good horseman, without pressing too much upon the mouth of his horse, is always prepared to assist him, in case of a blunder, with the united exertions of his arm, chest, shoulders, and loins; and, from the force of constant habit, this comes instinctively, as it were, for the occasion; even if the accident be unnoticed or the mind otherwise engaged. Both hands upon the bridle are necessary and becoming, in riding fast down steep descents, or stoney ways; and it is extreme folly to commit the reins to the neck of the presumed safest horse.

Some speedy and jadish horses, will, after "they have got their gruel," by being travelled briskly, thirty or forty miles, at the next stage, fall into a slow trot, bend their necks, foam at the mouth, refuse to bear an ounce upon the bit, and keep perpetually upon the curvet, as if they longed to be upon the parade. Whenever this happens, the best way of concluding the business, is to walk them the remainder of the journey, and then give them a week's rest: You may choose whether you will ride them another.

Previous to mounting, every gentleman will find his account in examining the state of both horse and furniture, with his own eyes and hands; for however good and careful his groom may generally be, it is a maxim, that too much ought not to be expected from the head of him who labours with his hands. Besides, all such sedulously avoid trouble, particularly in nice matters. For example, see that your curb is right, that your reins are not twisted, that your girths, one over the other, still bear exactly alike; that the pad be not rucked up; but above all, that your saddle stands exactly level upon the horse's back. I have known capital grooms, in the service of sporting gentlemen, so careless in placing a saddle, that it has absolutely worn awry, and would never stand even afterwards.

In journey-riding, every person ought to know, that no great performances are to be expected from a hack, which is not in thorough condition. If he has been lately from grass, or straw-yard, or has been kept within, upon the saving plan of abridging his food in proportion to his work (a favourite measure with some people) he will receive damage from a long journey, however good he may be in nature: in such case, from thirty, to five-and-forty miles, is a sufficient day's work.

On the subject of Female Equitation, or Ladies Riding on Horseback, a quotation from Mr. HUGHES, whose authority will be acknowledged unquestionable, cannot but be acceptable.

"*Method of Mounting.*—A person should stand before the head of the horse, holding with each hand the upper part of the cheek of the bridle. Then the lady must lay her right hand on the near side of the pommel, and her left hand on the left shoulder of a gentleman (or a servant) who will place both his hands together, the fingers and thumbs being interwoven with each other. This being done, let the lady put her left foot firm in the gentleman's hands; and giving a little spring, she will be vaulted into the saddle in a moment. When she is

is thus ſeated, let her reſt the ball of her left foot firm in the ſtirrup; and to prevent accidents, ſhe ſhould wear *Italian* ſhoes, with very long quarters, and the heel of the ſhoe coming forward to the middle of the foot. Ladies ſhoes, made in the common faſhion, are dangerous, becauſe the foot reſts in the hollow between the toes and the heel. Remember that the pommel of the ſaddle ſhould be made very low, that the ladies knee may not be thrown too high; and the ſtirrup ſhould hang low; both which circumſtances will help to give her a graceful figure, and add greatly to thoſe charms which nature has beſtowed on her. When ſhe is thus placed, let her take her whip in her right hand, near the head, with her thumb upon it, and the four fingers under it, holding it obliquely, ſo that the ſmall end of it may be ſome inches above the middle of the horſe's hind leg. The arm that ſupports the whip is always to hang ſtraight; but with a kind of negligent eaſe; nothing looks more awkward than a lady's holding the whip with her arm crooked at the elbow. A lady ſhould hold her bridle moderately ſlack, with her little finger under the rein, and the other three fingers paſſing between the rein, on the top of which her thumb muſt be placed. Being thus ſeated, ſhe will pleaſe to walk her horſe off gently, and put him into his other paces at her pleaſure.

"The pommel of a ladies ſaddle ſhould be always made with a turn-again ſcrew, to take off in caſe the rain, wind, or ſun is troubleſome—when a lady may ride on the contrary ſide of the horſe."

Queen ELIZABETH, it ſeems, firſt of all introduced the practice of ladies riding ſideways on horſeback, in *England*. Much has been ſaid againſt it, as inconvenient and dangerous; but on conſulting an experienced lady on the ſubject, ſhe remarked that ſcarce any accidents ever occurred from the practice, even in hunting; that it was not only more decorous, but much more convenient for women, in ſeveral reſpects, which ſhe was ingenuous enough particularly to ſtate.

HORSE-RACING; a diverſion more uſed in *England*, than in all the world beſide, *ſee* ARABIAN, PEDIGREE OF A HORSE.

Horſe-racing is of conſiderably antiquity in this iſland, and may be traced as far back as the eleventh century, but did not begin to put on any regulated form until the acceſſion of the houſe of STUART, moſt of the princes of which entertained great partiality for the port, as has been already remarked. *Newmarket* began to be frequented previous to the Civil War; but in the reign of CHARLES II. encouraged by the preſence of the monarch and his favourites, it ſhone forth in full glory: every body knows it now, by common fame, as the head-quarters of the turf. Frequent meetings, at ſtated periods, are there held, and the ſport generally continues throughout the week; there are about fourſcore places beſides, in *England*, where races are annually held; in ſome twice in the year. At *Newmarket*, nearly all races are determined at one heat, as a meaſure of neceſſity, from their uſual number and variety.

The ſpeed and continuance of the race-horſes muſt neceſſarily be affected and governed, in certain degrees, by the weight which they have to carry; and reaſoning upon that poſition, it will be eaſily conceived, that if two horſes be equally matched in point of ſpeed and ſtrength, and put to their utmoſt exertion for a conſiderable diſtance, the horſe which carries the leaſt weight, by even only a ſingle pound, muſt infallibly have the advantage to a certain degree (however ſmall) in the ability of going more ſwift and laſting longer, than his antagoniſt. The ſwifter the pace, and the longer it is continued, the more in proportion will the horſe be affected by the weight he carries. It is ſaid, that in running four miles, ſeven pounds make the difference of a diſtance, or two hundred and forty yards, between horſes of equal goodneſs. This affair of weight is regulated with ſcientific preciſion upon the turf, and forms a prime conſideration in all ſporting tranſactions. The weights carried by race-horſes vary from the maximum twelve ſtone, fourteen pounds to the ſtone, to a feather, which means a boy of the lightest weight to be found.

The thorough-bred courſer is, in a general point of view, the moſt uſeful ſpecies of the horſe, as being applicable to every purpoſe, from innate qualities, which can be predicated of no other ſpecies of the animal.

Horſes for this ſhould be as light as poſſible, large, long, but well ſhaped; with a ſhort back, long ſides, and a little long-legged, and narrow breaſted, for ſuch will gallop the lighter and nimbler, and run the faſter. SOLLEYSEL ſays, he ſhould be ſomewhat long-bodied, nervous, of great mettle, good wind, good appetite, very ſwift, and ſenſible of the ſpurs; that he ought to be of an *Engliſh* breed, or barb, of a little ſize, with pretty ſmall legs, but the back ſinews a good diſtance from the bone, ſhort jointed, and have neat well ſhaped feet.

The excellent breed we have of horſes for racing in our country, though through ſeveral abuſes they have been unfortunately injurious to a great many perſons, yet if rightly regulated and made uſe of, might be very advantageous, as well as pleaſant and diverting to men of quality; and that is by having plates run for at ſeveral times, and in ſeveral countries, by which we may come exactly to know the ſpeed, wind, force, and heart of every horſe that runs, which directs us infallibly in our choice, when we would furniſh ourſelves for hunting, breeding, road, and the like; whereas without ſuch trials, we muſt ſtand to the hazard, and not be at any certainty to meet with good ones. A horſe may travel well, hunt well, and the like, and yet when he comes to be preſſed hard, and forced to the extremity of what he can do, may not prove good at heart; and more particularly, ſome racers have been beaten only by their heart ſinking in them (that have wanted neither wind nor ſpeed) when they came to be hard preſſed.

It were indeed to be wiſhed, that our nobility and gentry would not make ſo much a trade of racing; and when they run only for plates or matches, that they would do it for no more than may be loſt without damaging their eſtates; but to run for ſo great a ſum, that the loſs cannot be well borne, and conſequently endeavouring to win the ſame, if not more back again, it draws them into vaſt expence by way of preparation

The word humours hath so indeterminate a use amongst many, as hardly to have any meaning in it; but in general, it contains this supposition, viz. that there is a faulty quality in that to which this name is given. Humour is only another word for fluid. The blood is the general humour or fluid, from whence all the other humours or fluids in the body except the chyle, is separated; naturally these humours or fluids neither err in quantity or quality, though they may accidentally become faulty either way, or in both at the same time.

Again, to say the humours or fluids without specifying what particular ones are intended, is using a word without signification or advantage; for without a knowledge of the particular humour or fluid that is in fault, we must be ignorant of the proper method of altering either the quantity or the quality. The quality of all are changed by alteratives; but different alteratives are sometimes required, not only for the different humours, but also for the different states of the same humour; and as to the quantity, a redundance of red blood requires bleeding; an excess of serum requires purges or diuretics; and other means are adapted to other humours; particular acquaintance with which is necessary before they can be altered in their quality, or either increased or diminished in their quantity.

HUNGRY EVIL, is an inordinate desire in horses to eat.

It proceeds either from great emptiness or want of food, when the beast is even at the utmost pinch, and almost chapfallen; though it sometimes proceeds from cold outwardly taken; sometimes by travelling long in frost and snow, or through barren places: this outward cold affecting the stomach so far, that its action and faculties are depraved.

The tokens of this distemper are an alteration in the horse's manner of feeding, when he has lost all manner of temperance, and chops at his meat, as if he would even devour the manger.

For the cure: In order to comfort his stomach, give him great slices of bread toasted and steeped in sack, or give him wheat-flour in wine, or wheat-meal in milk, a quart at a time, or else let him eat bread made of pine-nuts.

But there is nothing better than to feed him moderately several times in a day with good bean-bread well baked, or oats well dried and sifted.

HUNTING. Above all things the scent is worthy admiration. The bulk, size, figure, and other accidents or qualities of these parts, or portions of matter that discharge themselves from the bodies of these beasts of game, are subjects much fitter for the experiments and learned descants of a philosopher, than a simple huntsman. Whether they are to be considered as an extraneous stock or treasure of odoriferous particles given them by Divine Wisdom, for the very purpose of hunting? Whether they are proper identical parts of the animal's body, that continually ferment and perspire from it? Whether these exhalations are from the breath of her lungs, or through the skin of her whole body, are questions also that deserve the subtlety of a virtuoso. But such observations as long experience has suggested, will be expressed in the plainest manner. That these particles are inconceivably small, is manifest from their vast numbers. Hundreds of hares, after a chase of two, three, four, or five hours, have been taken, and never shewed the least difference, in bulk or weight, from those seized or snapt in their forms: nor could we ever learn from gentlemen, who have hunted basket hares, that they could discover any visible waste in their bodies, any farther than may be supposed to be the effect of discharging their grosser excrements. But supposing an abatement of two or three grains, or drachms, after so long a fatigue; yet how minute and almost infinite must be the division of so small a quantity of matter, when it affords a share to so many couple of dogs, for eight, ten, or twenty miles successively. Deducting, at the same time, the much greater number of these particles that are lost in the ground, dissipated in the air, extinguished and obscured by the fœtid perspirations of the dogs and other animals, or by the very fumes and exhalations of the earth itself. That these particles are subject to such dissipation or corruption, every sportsman knows; for as none of them will retain their odour after a certain proportionable time, so it is daily evident, that this time of their duration is very subservient to the vicissitudes of the weather; that the scent of the animal (as well as her more solid flesh) will lose its sweetness, sooner or later, according to the disposition of the air.

It has been often perceived that, a storm approaching, the scent will, in a moment change and vanish. Nor is the suddenness of such alteration the least wonderful, if we take into consideration the smallness of the particles. The same efficient cause may penetrate and corrupt these minute corpuscles in the twinkling of an eye, which requires an hour or a day to operate on bodies of greater bulk and substance; as the same fire, or aqua-fortis, will dissolve the filings of steel in an instant, though a pound lump of that same metal is so long able to resist their violence. That these particles of scent are of an equal specific gravity with the particles of the air, is demonstrated by the falling and rising of them in just proportion to it.

Hasty huntsmen will curse their dogs (that yesterday were the best in *England*) for galloping and staring, with their noses in the air, as if their game was flown; for often does it happen that it is in vain for them to seek after the scent in any other place, the increasing weight of the air having wafted it over their heads. Though even at such a season, after first the mettle and fury of the cry is somewhat abated, the more steady beagles may make a shift to pick it out by the particles left by the brush of her feet, especially if there be not a strong, drying, exhaling wind to hurry these away after the rest. This often happens in a calm, gentle, steady frost, when the purity, coldness, or perhaps the nitre of the air, serves to fix and preserve the few remaining particles, that they do not easily corrupt. At another season, when the air is light, or growing lighter, the scent must proportionably be falling or sinking, and then every dog, though in the height of his courage, he pushes forwards, yet is forced to come back again and again, and cannot

cannot make any ſure advances, but with his noſe in the ground. When circumſtances are thus (if there be not a ſtorm of thunder impending to corrupt the ſcent, you may expect the moſt curious and laſting ſport; puſs having then a fair opportunity to ſhew her wiles, and every old or ſlow dog to come in for his ſhare, to diſplay his experience, the ſubtlety of his judgment, and the tenderneſs of his noſtrils. The moſt terrible day for the hare is, when the air is in its mean gravity, or equilibrio, tolerably moiſt, but inclining to grow drier, and fanned with gentle breezes: the moderate gravity buoys up the ſcent as high as the dog's breaſt; the veſicles of moiſture ſerve as ſo many canals, or vehicles, to carry the effluvia into their noſes; and the gentle fannings help, in ſuch wiſe to ſpread and diſſipate them, that every hound, even at eight or ten paces diſtant, eſpecially on the windy ſide, may have his portion.

It is neceſſary for all gentlemen who delight in hunting, to provide themſelves with a barometer, or weather-glaſs, as this ingenious machine is of great uſe to the obſervant huntſman; for when he riſes in the morning, and finds the air moiſt and temperate, the quick-ſilver in his glaſs moderately high, or gently convex, he has a fair invitation to prepare for his exerciſe. It is a cuſtom with our juvenile ſportſmen to fix the time two or three days before hand to meet a friend, or to hunt in ſuch or ſuch a quarter. But appointed matches of this kind are improvident. He that will enjoy the pleaſures of the chaſe muſt aſk leave of the heavens. Hunting is a trade that is not to be forced, nor can the beſt cry that ever was coupled, make any thing of it, unleſs the air be in tune. The earth alſo hath no ſmall influence on this delicious paſtime; for though it ſometimes happens that the ſcent is floating, ſo that you may run down a hare through water and mire, eſpecially if you keep pretty cloſe after her, without the trouble of ſtooping; yet, at ſuch a ſeaſon, the firſt fault is the loſs of your game; the perſpirations of her body being wafted over head by the gravity of the air, and thoſe of her feet being left on elements that abſorb and confound them. This laſt caſe very often happens at the going off of a froſt, the mercury is then commonly falling, and by conſequence the ſcent ſinking to the ground. The earth is naturally on ſuch occaſion fermenting, diſſolving, ſtinking, exhaling, and very porous, ſo that it is impoſſible but moſt of the particles muſt then be corrupted, buried, or overcome by ſtronger vapours. It is common to hear the vulgar ſay, ſhe carries dirt in her heels, but that is not all, it being very plain, by what has been obſerved, that it is not only by the ſcent of the foot ſhe is ſo eagerly purſued. The mention of froſt enforces a particular obſervation, that may be uſeful or diverting to gentlemen of the chaſe: they all make it a great part of their pleaſure to hunt out the walk of a hare to her ſeat, and doubtleſs have often been ſurprizingly diſappointed on ſuch occaſions Many times they have been able to hunt the ſame walk in one part of the fields and not in another, and have hunted the ſame walk at ten or eleven, which gave the leaſt ſcent at ſeven in the morning; and, which is moſt provoking and perplexing of all, have often been able to hunt it only at the wrong end, or backwards; after many hours wonder and expectation, cheriſhing their dogs, and curſing their fortune, and, in truth, never ſo far from their game as when their hunt is warmeſt. All theſe accidents are only the effect of the hoar-froſt, or very groſs dew (for they never happen otherwiſe) and from thence muſt the miracle be accounted for. Indeed Xenophon, in a Treatiſe on Hunting, ſays, "In the winter there is no ſcent early in the morning when there is either an hoar-froſt or a hard froſt; the hoar-froſt, by its force, contracts and contains all the warm particles in itſelf, and the harder froſt congeals them. In theſe caſes the dogs, with the moſt tender noſes, cannot touch, before the ſun diſpels them, and the day is advanced, then the dogs can ſmell, and the trail yields a ſcent as it evaporates."

A thaw tends to corrupt the particles, and we have reaſon to maintain that the froſt fixes, covers, and preſerves them. Whether this is done by intercepting their aſcent, and precipitating them to the ground by the groſs particles of frozen dew, or whether by ſheathing them and protecting them from the penetrating air, is left to the learned, but the facts are certain, and confirmed by experience. We have, therefore, only to take notice, by the way, that the hoar-froſt is very often of ſhort continuance, changeable, and uncertain, both as to its time and place of falling, and hence all theſe difficulties are eaſily reſolved. Let the huntſman, as ſoon as he is out of bed, examine but the glaſs windows, which commonly diſcover whether any hoar-froſt has fallen, what time it came, and in what condition of continuance, or going off, it is for the preſent. If it appears to have fallen at two, three, or four in the morning (ſuppoſe in the month of *October*, and other times of the year muſt be judged of by proportion) to be going off about break of day, it may then be expected that there will be a great difficulty, or impoſſibility, of trailing to her ſeat, becauſe her morning retreat being on the top of the frozen dew, the ſcent is either diſſolved, or corrupted, or diſſipated, and exhaled. It is true, after ſuch a night the dogs will find work in every field, and often hunt in full cry, but it will be generally backward, and always in vain; her midnight ramblings, which were covered by the froſt, being now open, freſh, and fragrant. If the ſaid froſt begins later in the morning, after puſs is ſeated, there is nothing to be done till that is gone off, and this is the reaſon that we often ſee the whole pack picking out a walk at nine or ten in the ſame path where another dog could not touch at ſeven. Again, if the froſt began early enough, and continues ſteadily till you are gotten into the fields, you may then make it good to her ſeat, as well as at other times on naked ground, though you muſt expect to run a good riſque at the going off of the froſt, according to the obſervations already laid down.

It is alſo to be remembered, that there is no ſmall accidental difference in the very particles of ſcent; that is, that they are ſtronger, ſweeter, or more diſtinguiſhable at one time than at another, and that this difference is found not only in divers, but often in the ſame individual creature, according to the changes of the air, or the ſoil, as well as of her own motions or conditions.

That

That there is a different ſcent in other animals of the ſame ſpecies, is evident from the draught-hounds, which were formerly made uſe of for tracing and purſuing thieves and deer-ſtealers, or rather from any common cur or ſpaniel, which will hunt out their maſter's horſe diſtinctly from all others: and that it is the ſame with the hare is no leſs viſible from the old beagles, which will not readily change for a freſh one, unleſs ſhe ſtarts in view, or unleſs a fault happens that puts them in confuſion, aad inclines them in deſpair to take up with the next they can come by.

That the ſame hare will, at divers times, emit finer or groſſer particles, is equally manifeſt to every one who ſhall obſerve the frequent changes in one ſingle chaſe, the alterations that enſue on any different motion, and on her degrees of ſinking. The courſing of a cur-dog, or the fright from an obvious paſſenger, is often the occaſion of an unexpected fault; and, after ſuch an accident the dogs muſt be cheriſhed, and be put upon it again and again, before they will take it and acknowledge it for their game. The reaſon is, as I conceive the change of the motion, cauſes a change in the perſpiring particles, and as the ſpirits of the dogs are all engaged and attached to particles of ſuch or ſuch a figure, it is with difficulty they come to be ſenſible of, or attentive to, thoſe of a different reliſh. The alterations in a yielding hare are leſs frequeutly the occaſion of faults, becauſe they are more gradual, and like the ſame rope, inſenſibly tapering and growing ſmaller. But that alterations there are, every dog-boy knows, by the old hounds, which ſtill purſue with greater earneſtneſs, as ſhe is nearer her end.

Motion is ſaid to be the chief cauſe of ſhedding or diſcharging theſe ſcenting particles, becauſe ſhe is very ſeldom perceived whilſt quiet in her form, though the dogs are never ſo near, though they leap over her, or as has been often ſeen, even tread upon her. Indeed it ſometimes happens, that ſhe is, as we ſay, winded where ſhe ſits. But this may be the effect of that train of ſcent ſhe left behind her in going to her chair, or more probably the conſequence of her own curioſity, in moving, and riſing up, to peep after and watch the proceedings of her adverſaries. However, we muſt grant, that theſe particles of ſcent, though the effect of motion, are not more groſs and copious in proportion to the increaſing ſwiftneſs of the animal, any more than in a watering-pot, which the ſwifter it paſſes, the leſs of the falling water it beſtows upon the ſubjacent plants

It is very plain, the ſlower the hare moves, the ſtronger and groſſer, *ceteris paribus*, are theſe particles ſhe leaves behind her, which I take to be one reaſon (beſides the cloathing and ſhielding of them from the penetrating air by the deſcending froſt or dew) that the morning walk will give ſcent ſo much longer than the flight in hunting, which is another obſervation of Xenophon, who expreſſes himſelf in the following words in his *Treatiſe on Hunting*. "The ſcent of the trail of the hare, going to her ſeat, laſts longer than that of her courſe when purſued: when ſhe goes to her ſeat ſhe goes ſlowly, often ſtanding ſtill; but her courſe, when purſued, is performed running; therefore the ground is ſaturated with one, and not filled with the other." However, it is as remarkable, that theſe odorous particles gradually decay and end with her life; becauſe it requires the moſt curious noſes to lead the cry, when ſhe is near her laſt; becauſe ſhe is entirely loſt at the laſt ſquat, and becauſe if you knock her on the head before them, there is hardly one in the pack that will ſtop or take any notice of her.

The greateſt art and curioſity is diſcovered in hunting the foil, eſpecially if ſhe immediately ſteal back behind the dogs the ſame path ſhe came; for it muſt require the utmoſt ſkill to diſtinguiſh well the new ſcent from the old, when both are mixed, obſcured, and confounded, with the ſtrong perſpirations of ſo many dogs and horſes. Yet this is often ſeen performed by ready and expert hunters. However, if the dogs be not maſters of their buſineſs, or if the air be not in due balance, the difficulty will be the greater.

Theſe remarks are generally made on the hare, which is of all others moſt worthy of ſpeculation and inquiry. By analogy the hunting the deer or fox will be eaſily underſtood, for though the ſcent of theſe is generally higher, more obvious to the noſes of the dogs, and in greater plenty whilſt the particles laſt, yet for that very reaſon (floating in the air) they are ſooner diſſipated, and require a more vigorous, though leſs ſubtle huntſman, as well as ſwifter beagles.

With reſpect to the hare, each part and member is formed for celerity. The head is round and ſhort, of a convenient length; the ears long and lofty, to hear the enemy at a diſtance, and ſave itſelf in time; the lips continually move, ſleeping and waking; and the eye is too big and round for the lid to cover it, even when aſleep; ſo that the creature ſleeps as it were on the watch. The breaſt is capacious, and fitted to take more breath than that of any other beaſt. They feed abroad, to conceal their forms; and never drink, but content themſelves with the dew. The hare's ears lead the way in her chaſe; for with one of them ſhe hearkeneth to the cry of the dogs, the other being ſtretched out like a ſail to promote her courſe. The hares of the mountains often exerciſe themſelves in valleys and plains, and, through practice, grow acquainted with he neareſt way to their forms: thoſe which frequent buſhes and brakes, are not able to endure labour; nor are very ſwift, being tender-footed, and growing fat through diſcontinuance of exerciſe. When the hare has left the dogs far behind, ſhe goes to ſome hill or riſing ground, where, rearing on her hinder legs, ſhe obſerves at what diſtance her purſuers are. Her footſteps are more ſeen in winter than ſummer; becauſe, as the nights are longer, they travel farther. Their prints are very uncertain at the full moon, at which time they leap and play together. The young, it is to be obſerved, tread heavier than the old, becauſe their limbs are weaker. A buck, or male hare, is known by his beating the hard high-ways, feeding farther out in the plains, and making his doublings of a greater compaſs than the female, who keeps cloſe by ſome covert ſide; turning, winding, and croſſing in the buſhes, like a rabbit, and rarely running out at an end; whereas the buck, having once made a turn or two about his form, then farewel turns; for he will frequently lead the

the hounds five or ſix miles without once turning his head. Add, that the buck is known, at his riſing out of form, by his hinder parts, which are more white, and his ſhoulder, which is redder than the doe's.

As, of all chaſes, the hare makes the greateſt paſtime, ſo it gives no ſmall pleaſure to ſee the craft of this little animal for her ſelf-preſervation. The hare is naturally timid; but emanates a very ſtrong ſcent. He ſleeps in his form or ſeat, during the day; and feeds, copulates, &c. in the night. In a moon-light evening, a number of them are ſometimes ſeen ſporting together, leaping and purſuing each other: but the leaſt motion, the falling of a leaf, alarms them; and then they all run off ſeparately, each taking a different route. They are extremely ſwift in their motion, which is a kind of gallop, or a ſucceſſion of quick leaps. When purſued, they always take to the higher grounds: as the fore-feet are much ſhorter than the hind ones, they run with more eaſe up hill than down hill. The hare is endowed with all thoſe inſtincts which are neceſſary for its own preſervation. In winter he chuſes a form expoſed to the ſouth, and in ſummer to the north; and conceals himſelf among vegetables of the ſame colour with himſelf, and has a thouſand contrivances to elude the vigilance of his purſuers, and to cut off his ſcent from the hounds. If it be rainy, the hare uſually takes to the highways; and if ſhe come to the ſide of a young grove, or ſpring, ſhe ſeldom enters, but ſquats down till the hounds have over-ſhot her; and then ſhe will return the very way ſhe came, for fear of the wet and dew that hang on the boughs. In this caſe the huntſman ought to ſtay a hundred paces before he comes to the wood-ſide, by which means he will perceive whether ſhe return as aforeſaid; which if ſhe do, he muſt halloo in his hounds, and call them back; and that preſently, that the hounds may not think it the counter ſhe came firſt.

The next thing that is to be obſerved, is the place where the hare ſits, and upon what wind ſhe makes her form, either upon the north or ſouth wind: ſhe will not willingly run into the wind, but run upon aſide, or down the wind; but if ſhe form in the water, it is a ſign ſhe is foul and meaſled: if you hunt ſuch a one, have a ſpecial regard all the day to the brook ſides; for there, and near plaſhes, ſhe will make all her croſſings, doublings, &c. Some hares have been ſo crafty, that as ſoon as they have heard the ſound of a horn, they would inſtantly ſtart out of their form, though it was at the diſtance of a quarter of a mile, and go and ſwim in ſome pool, and reſt upon ſome ruſh-bed in the midſt of it; and would not ſtir from thence till they have heard the ſound of the horn again, and then have ſtarted out again, ſwimming to land, and have ſtood up before the hounds four hours before they could kill them, ſwimming and uſing all ſubtleties and croſſing in the water. Nay, ſuch is the natural craft and ſubtlety of a hare, that, ſometimes after ſhe has been hunted three hours, ſhe will drive up a freſh hare, and ſquat in the ſame form herſelf. Others, having been hunted for a conſiderable time, will creep under the door of a ſheep-cot, and hide themſelves among the ſheep; or, when they have been hard hunted, will run in among a flock of ſheep, and will by no means be gotten out from among them till the hounds are coupled up, and the ſheep driven into their pens. Some of them will take to the ground like a rabbet, and run up a wall, and hide in the graſs on the top of it. Some hares will go up one ſide of the hedge and come down the other, the thickneſs of the hedge being the only diſtance between the courſes. A hare that has been ſorely hunted, has got upon a quick-ſet-hedge, and ran a good way upon the top thereof, and then leaped off to the ground. And they will frequently betake themſelves to furze-buſhes, and will leap from one to the other, to cut off the ſcent, whereby the hounds are frequently in default.

Having found where a hare hath relieved in ſome paſture or corn-field, you muſt then conſider the ſeaſon of the year, and what weather it is: for, if it be in ſpring-time or ſummer, a hare will not ſit in buſhes, becauſe they are frequently infeſted with piſmires, ſnakes, and adders; but will ſit in corn-fields, and open places. In the winter time, they ſit near towns and villages, in tufts of thorns and brambles, eſpecially when the wind is northerly or ſoutherly. According to the ſeaſon and nature of the place where the hare is accuſtomed to ſit, there beat with your hounds, and ſtart her; which is much better ſport than trailing of her from her relief to her form. After the hare has been ſtarted, and is on foot, then ſtep in where you ſaw her paſs, and halloo in your hounds, until they have all undertaken it, and go on with it in full cry: then recheat to them with your horn, following fair and ſoftly at firſt, making not too much noiſe either with horn or voice; for at the firſt, hounds are apt to over-ſhoot the chaſe through too much heat. But when they have run the ſpace of an hour, and you ſee the hounds are well in with it, and ſtick well upon it, then you may come in nearer with the hounds, becauſe by that time their heat will be cooled, and they will hunt more ſoberly. But, above all things, mark the firſt doubling, which muſt be your direction for the whole day; for all the doublings that ſhe ſhall make afterwards will be like the former; and, according to the policies that you ſhall ſee her uſe, and the place where you hunt, you muſt make your compaſſes great or little, long or ſhort, to help the defaults; always ſeeking the moiſteſt and moſt commodious places for the hounds to ſcent in.

It is remarkable that the hare, although ever ſo frequently purſued by the dogs, ſeldom leaves the place where ſhe was brought forth, or even the form in which ſhe uſually ſits. It is common to find them in the ſame place next day, after being long and keenly chaſed the day before. The females are more groſs than the males, and have leſs ſtrength and agility; they are likewiſe more timid, and never allow the dogs to approach ſo near their form before riſing as the males. They likewiſe practice more arts, and double more frequently than the males.

The hare is diffuſed almoſt over every climate; and, notwithſtanding they are every where hunted, their ſpecies never diminiſh. They are in a condition of propagating the firſt year of their lives; the females go with young about thirty days, and produce four or five

at a time; and as soon as they have brought forth, they again admit the embraces of the male; so that they may be said to be always pregnant. The eyes of the young are open at birth; the mother suckles them about twenty days, after which they separate from her, and procure their own food. The young never go far from the place where they were brought forth; but still they live solitary, and make their forms about thirty paces distant from each other: thus, if a young hare be found any where, you may be almost certain of finding several others within a very small distance.

Hunting the Fox.

Fox-hunting is now considered as the only chase in *England*, worthy the taste or attention of a high-bred sportsman. It certainly is the most manly and most princely diversion, and by far the best exercise. It is termed either above, or below ground.

1. *Above-ground.* To hunt a fox with hounds, you must draw about groves, thickets, and bushes, near villages. When you find one, it will be necessary to stop up his earth the night before you design to hunt, and that about midnight; at which time he is gone out to prey: this may be done by laying two white sticks across in his way, which he imagines to be some gin or trap laid for him; or else they may be stopped up with some black-thorns and earth mixed together.

Mr. Beckford, in his late ingenious treatise, is of opinion, that, for fox-hunting, the pack should consist of twenty-five couple. The hour most favourable for the diversion is an early one; and he thinks that the hounds should be at the cover at sun-rising. The huntsman should then throw in his hounds as quietly as he can, and let the two whippers-in keep wide of him on either hand; so that a single hound may not escape them; let them be attentive to his halloo, and let the sportsmen be ready to encourage, or rate, as that directs. The fox ought on no account to be hallooed too soon, as in that case he would most certainly turn back again, and spoil all the sport.—Two things our author particularly recommends, viz. the making all the hounds steady, and making them all draw. "Many huntsmen (says he) are fond of having them at their horse's heels; but they never can get so well or so soon together as when they spread the cover; besides, I have often known, when there have been only a few finders, that they have found their fox gone down the wind, and been heard of no more that day. Much depends upon the first finding of your fox; for I look upon a fox well found to be half killed. I think people are generally in too great a hurry on this occasion. There are but few instances where sportsmen are not too noisy, and too fond of encouraging their hounds, which seldom do their business so well as when little is said to them. The huntsman ought certainly to begin with his foremost hounds; and I should wish him to keep as close to them as he conveniently can; nor can any harm arise from it, unless he should not have common sense. No hounds can then slip down the wind and get out of his hearing; he will also see how far they carry the scent, a necessary requisite; for without it he never can make a cast with any certainty.—You will find it not less necessary for your huntsman to be active in pressing his hounds forward when the scent is good, than to be prudent in not hurrying them beyond it when it is bad. It is his business to be ready at all times to lend them that assistance which they so frequently need, and which when they are first at a fault is then most critical. A fox-hound at that time will exert himself most; he afterwards cools and becomes more indifferent about his game. Those huntsmen who do not get forward enough to take advantage of this eagerness and impetuosity, and direct it properly, seldom know enough of hunting to be of much use to them afterwards. Though a huntsman cannot be too fond of hunting, a whipper-in easily may. His business will seldom allow him to be forward enough with the hounds to see much of the sport. His only thought therefore should be to keep the hounds together, and to contribute, as much as he can, to the killing of the fox; keeping the hounds together is the surest means to make them steady. When left to themselves they seldom refuse any blood they can get; they become conceited; learn to tire upon the scent; and, besides this, they frequently get a trick of hunting by themselves, and are seldom good for much afterwards.

"Every country is soon known; and nine foxes out of ten, with the wind in the same quarter, will follow the same track. It is easy, therefore, for the whipper-in to cut short, and catch the hounds. With a high scent you cannot push your hounds on too much. Screams keep the fox forward, at the same time that they keep the hounds together, or let in the tail hounds: they also enliven the sport; and, if discreetly used, are always of service; but in cover they should be given with the greatest caution. Halloos seldom do any hurt when you are running up the wind, for then none but the tail-hounds can hear you: when you are running down the wind, you should halloo no more than may be necessary to bring the tail-hounds forward; for a hound that knows his business seldom wants encouragement when he is upon a scent.—Most fox-hunters wish to see their hounds run in a good style. I confess I myself am one of those; I hate to see a string of them; nor can I bear to see them creep where they can leap. A pack of harriers, if they have time, may kill a fox, but I defy them to kill him in the style in which he ought to be killed; they must hunt him down. If you intend to tire him out, you must expect also to be tired yourself; I never wish a chase to be less than one hour, or to exceed two: it is sufficiently long if properly followed: it will seldom be longer unless there be a fault somewhere; either in the day, the huntsman, or the hounds.

"Changing from the hunted fox to a fresh one is as bad an accident as can happen to a pack of fox-hounds, and requires all the ingenuity and observation that a man is capable of to guard against it. Could a fox-hound distinguish a hunted fox as the deer hound does the deer that is blown, fox-hunting would then be perfect. A huntsman should always listen to his hounds while they are running in cover; he should be particularly attentive to the headmost hounds, and he should be constantly on his guard against a skirter: for if there be

two

two ſcents, he muſt be wrong. Generally ſpeaking, the beſt ſcent is leaſt likely to be that of the hunted fox: and as a fox ſeldom ſuffers hounds to run up to him as long as he is able to prevent it; ſo, nine times out of ten, when foxes are hallooed early in the day, they are all freſh foxes. The hounds moſt likely to be right are the hard-running line-hunting ones; or ſuch as the huntſman knows had the lead before there aroſe any doubt of changing. With regard to the fox, if he break over an open country, it is no ſign that he is hard run; for they ſeldom, at any time, will do that unleſs they are a great way before the hounds. Alſo, if he run up the wind;—they ſeldom or never do that when they have been long hunted and grow weak; and when they run their foil, that alſo may direct him. All this requires a good ear and nice obſervation; and indeed in that conſiſts the chief excellence of a huntſman.

"When the hounds divide and are in two parts, the whipper-in, in ſtopping, muſt attend to the huntſman, and wait for his halloo, before he attempts to ſtop either: for want of proper management in this reſpect I have known the hounds ſtopped at both places, and both foxes loſt. If they have many ſcents, and it is quite uncertain which is the hunted fox, let him ſtop thoſe that are farthest down the wind; as they can hear the others, and will reach them ſooneſt: in ſuch a caſe there will be little uſe in ſtopping thoſe that are up the wind. When hounds are at a check, let every one be ſilent and ſtand ſtill. Whippers-in are frequently at this time coming on with the tail-hounds. They ſhould never halloo to them when the hounds are at fault; the leaſt thing does them harm at ſuch a time, but a halloo more than any other. The huntſman, at a check, had better let his hounds alone; or content himſelf with holding them forward, without taking them off their noſes.—Should they be at fault, after having made their own caſt (which the huntſman ſhould always firſt encourage them to do) it is then his buſineſs to aſſiſt them further; but, except in ſome particular inſtances, I never approve of their being caſt as long as they are inclined to hunt. The firſt caſt I bid my huntſman make, is generally a regular one, not chooſing to rely entirely on his judgment: if that ſhould not ſucceed, he is then at liberty to follow his own opinion, and proceed as obſervation or genius may direct. When ſuch a caſt is made, I like to ſee ſome mark of good ſenſe and meaning in it; whether down the wind, or towards ſome likely cover or ſtrong earth. However, as it is at beſt uncertain, I always wiſh to ſee a regular caſt before I ſee a knowing one; which, as a laſt reſource, ſhould not be called forth till it be wanted: the letting hounds alone is but a negative goodneſs in a huntſman; whereas it is true this laſt ſhews real genius; and, to be perfect, it muſt be born with him. There is a fault, however, which a knowing huntſman is too apt to commit: he will find a freſh fox, and then claim the merit of having recovered the hunted one. It is always dangerous to throw hounds into a cover to retrieve a loſt ſcent; and unleſs they hit him in it, is not to be depended on.

"Gentlemen, when hounds are at fault, are too apt themſelves to prolong it. They ſhould always ſtop their horſes ſome diſtance behind the hounds; and, if it be poſſible to remain ſilent, this is the time to be ſo. They ſhould be careful not to ride before the hounds, or over the ſcent; nor ſhould they ever meet a hound in the face unleſs with a deſign to ſtop him. Should you at any time be before the hounds, turn your horſe's head the way they are going, get out of their track, and let them paſs by you. In dry weather, and particularly in heathy countries, foxes will run the roads. If gentlemen at ſuch times will ride cloſe upon the hounds, they may drive them miles without any ſcent.—High-mettled fox-hounds are ſeldom inclined to ſtop whilſt horſes are cloſe at their heels. No one ſhould ever ride in a direction which if perſiſted in would carry him amongſt the hounds, unleſs he be at a great diſtance behind them.

"The firſt moment that hounds are at fault is a critical one for the ſport people, who ſhould then be very attentive. Thoſe who look forward may perhaps ſee the fox; or the running of ſheep, or the purſuit of crows, may give them ſome tidings of him. Thoſe who liſten, may ſometimes take a hint which way he is gone, from the chattering of a magpie; or perhaps be at a certainty from a diſtant halloo: nothing that can give any intelligence at ſuch a time ought to be neglected. Gentlemen are too apt to ride all together: were they to ſpread more, they might ſometimes be of ſervice; particularly thoſe who, from a knowledge of the ſport, keep down the wind: it would then be difficult for either hounds or fox to eſcape their obſervation.—You ſhould, however, be cautious how you go to a halloo. The halloo itſelf muſt in a great meaſure direct you; and though it afford no certain rule, yet you may frequently gueſs whether it can be depended upon or not. At the ſowing time, when boys are keeping off the birds, you will ſometimes be deceived by their halloo; ſo that it is beſt, when you are in doubt, to ſend a whipper-in to know the certainty of the matter."

Hounds ought not to be caſt as long as they are able to hunt. It is a common, though not a very juſt idea, that a hunted fox never ſtops; but our author informs us, that he has known them to ſtop even in wheel-ruts in the middle of a down, and get up in the middle of the hounds. The greateſt danger of loſing the fox is at the firſt finding him, and when he is ſinking; at both which times he frequently runs ſhort, and the eagerneſs of the hounds will frequently carry them beyond the ſcent. When a fox is firſt found, every one ought to keep behind the hounds till they are well ſettled to the ſcent; and, when the hounds are catching him, our author wiſhes them to be as ſilent as poſſible; and likewiſe to cat him eagerly after he is caught. In ſome places they have a method of *treeing* him; that is, throwing him acroſs the branch of a tree, and ſuffering the hounds to bay at him for ſome minutes before he is thrown among them; the intention of which is to make them more eager, and to let in the tail-hounds; during this interval alſo they recover their wind, and are apt to eat him more readily. Our author, however, adviſes not to keep him too long, as he ſuppoſes that the hounds

hounds have not any appetite to eat him, longer than while they are angry with him.

2. *Under-ground.* In case a fox does so far escape as to earth, countrymen must be got together with shovels, spades, mattocks, pickaxes, &c. to dig him out, if they think the earth not too great. They make their earths as near as they can in ground that is hard to dig, as in clay, stony-ground, or among the roots of trees; and their earths have commonly but one hole, and that is straight a long way in before you come at their couch. Sometimes craftily they take possession of a badger's old burrow, which hath a variety of chambers, holes, and angles.

Now to facilitate this way of hunting the fox, the huntsman must be provided with one or two terriers to put into the earth after him, that is, to fix him into an angle; for the earth often consists of many angles; the use of the terrier is to know where he lies; for as soon as he finds him, he continues baying or barking, so that which way the noise is heard, that way dig to him. Your terriers must be garnished with bells hung in collars, to make the fox bolt the sooner; besides, the collars will be some small defence to the terriers.

The instruments used to dig with are these: a sharp-pointed spade, which serves to begin the trench where the ground is hardest, and where broader tools will not so well enter; the round hollowed spade, which is useful to dig among roots, having very sharp edges; the broad flat spade to dig with, when the trench has been pretty well opened, and the ground softer; mattocks and pickaxes to dig in hard ground, where a spade will do but little service; the coal-rake to cleanse the hole, and to keep it from stopping up; clamps, wherewith you may take either fox or badger out alive, to make sport with afterwards. And it would be very convenient to have a pail of water to refresh your terriers with, after they are come out of the earth to take breath.

For hunting the Buck, or Deer, *see* STAG-HUNTING; and for hunting the Boar, Badger, Otter, &c. *see under their respective heads.*

On the Choice of a Hunter.

A true high-bred horse, of the racing kind, when very strong, and full of bone, is by far the best calculated for making a capital hunter. Next to these, what are called half-bred horses are generally to be preferred, as they unite fleetness and strength, are mostly staunch, and of good bottom. The shape of the horse designed for this service, should be strong and well knit together. Irregular or unequal shapes in these horses are always a token of weakness. The inequalities in shape which shew a horse improper for the chase, are the having a large head and a small neck, a large leg and a small foot, and the like. The true hunter ought to have strength without weight, courage without fire, speed without labour, a free breath, a strong walk, a nimble, light, but a large, gallop, and sweet trot, to give change and ease to the more speedy muscles. The marks most likely to discover a horse of these properties are, a vigourous, sanguine, and healthy colour, a head and neck as light as possible, whether handsome or not, a quick-moving eye and ear, clean wide jaws and nostrils, large thin shoulders, and high withers, deep chest, and short back, large ribs, and wide pin-bones, tail high and stiff, gaskins well spread, and buttocks lean and hard; above all, let his joints be strong and firm, and his legs and pasterns short; for, I believe, there never was yet a long limber-legged horse that was able to gallop down steep hills, and take bold leaps with a weight upon his back, without sinking, foundering, or falling. The whole shape of a horse intended for a hunter, should be this: the ears should be small, open, and pricked; or, though they be somewhat long, yet if they stand up erect and bold, like those of a fox, it is a sign of toughness or hardiness. The forehead should be long and broad, not flat, or, as it is usually termed, *mare-faced*, but rising in the middle like that of a hare; the feather should be placed above the eye, the contrary being thought by some to threaten blindness. The eyes should be full, large, and bright; the nostrils not only large, but looking red and fresh within; for an open and fresh nostril is always esteemed a sign of good wind. The mouth should be large, deep in the wicks, and hairy. The wind-pipe should be large, and appear straight when he bridles his head; for if, on the contrary, it bends like a bow on his bridling, it is not formed for a free passage of the breath. This defect in a horse is expressed among the dealers by the phrase *cock-throppled*. The head should be so set on to the neck, that a space may be felt between the neck and the chine; when there is no such space, the horse is said to be bull-necked; and this is not only a blemish in the beauty of the horse, but it also occasions his wind not to be so good. The crest should be strong, firm, and well-risen; the neck should be straight and firm, not loose and pliant; the breast should be strong and broad, the ribs round like a barrel, the fillets large, the buttocks rather oval than broad, the legs clean, flat, and straight; and, finally, the mane and tail ought to be long and thin, not short and bushy, the last being counted a mark of dulness. When a hunter is thus chosen, and has been taught such obedience, that he will readily answer to the rider's signals both of the bridle and hand, the voice, the calf of the leg, and the spurs; that he knows how to make his way forward, and has gained a true temper of mouth, and a right placing of his head, and has learned to stop and to turn readily, if his age be sufficiently advanced, he is ready for the field. It is a rule with all staunch sportsmen, that no horse should be used in hunting till he is full five years old; some will hunt them at four, but the horse at this time is not come up to his true strength and courage, and will not only fail at every tough trial, but will be subject to strains and accidents of that kind, much more than if he were to be kept another year first, when his strength would be more confirmed.

Of the Management of a Hunter.

When your hunter is five years old, he may be put to

to grass from the middle of *May* to *Bartholomew-tide*; for the weather between these is so hot, that it will be very proper to spare him from work. At *Bartholomew-tide*, the strength of the grass beginning to be nipped by frosts and cold dews, so that it is apt to engender crudities in the horse, he should be taken up while his coat is yet smooth and sleek, and put into the stable. When he is first brought home, he should be put in some secure and spacious place, where he may evacuate his body by degrees, and be brought not all at once to the warm keeping; the next night he may be stabled up. It is a general rule with many not to clothe and stable up their horses till two or three days after they are taken from grass, and others who put them in the stable after the first night, yet will not dress and clothe them till three or four days afterwards; but all this, except the keeping the horse one day in a large and cool place, is a needless caution.

There is a general practice among the grooms, in many places, of giving their hunters wheat-straw as as soon as they take them up from grass. They say they do this to make up their bellies; but there seems much reason to disapprove of this. The change is very violent, and the nature of the straw so heating and drying, that there seems great reason to fear that the astringent nature of it would be prejudicial, more than is at first perceived. It is always observed that the dung is hard after this food, and is voided with pain and difficulty, which is in general very wrong for this sort of horse. It is better, therefore, to avoid this straw feeding, and to depend upon moderate airing, warm clothing, and good old hay and sweet corn, than to have recourse to any thing of this kind.

When the horse has evacuated all his grass, and has been properly shod, and the shoes have had time to settle to his feet, he may be ridden abroad, and treated in this manner: the groom ought to visit him early in the morning, at five o'clock in the long days, and at six in the short ones; he must then clean out the stable, and feel the horse's neck, flank, and belly, to find the state of his health. If the flank feels soft and flabby, there is a necessity of good diet to harden it, otherwise any great exercise will occasion swellings and gaustiness in the heels. After this examination, a handful or two of old oats, well sifted, should be given him: this will make him have more inclination to water, and will also make the water sit better on his stomach, than if he drank fasting. After this he is to be tied up and dressed. If in the doing of this he opens his mouth, as if he would bite, or attempts to kick at the person, it is a proof that the teeth of the curry comb are too sharp, and must be filed blunter. If, after this, he continues the same tricks, it is through wantonness, and he should be corrected for it with the whip. The intent of currying being only to raise the dust, this is to be brushed off afterwards with a horse-tail nailed to a handle, or any other light brush. Then he is to be rubbed down with the brush, and dusted a second time; he should then be rubbed over with a wet hand, and all the loose hairs, and whatever foulness there is, should be picked off. When this is done, and he is wiped dry as at first, a large saddle-cloth is to be put on, reaching down to the spurring place; then the saddle is to be put on, and a cloth thrown over it that he may not take cold: then rub down his legs, and pick his feet with an iron-picker, and let the mane and tail be combed with a wet mane-comb. Lastly, it is a custom to spurt some beer in his mouth just before the leading him out of the stable. He should then be mounted, and walked a mile at least to some running water, and there watered; but he must only be suffered to take about half his water at one drinking.

It is the custom of many to gallop the horse at a violent rate as soon as he comes out of the water; but this is extremely wrong for many reasons. It endangers the breaking a horse's wind more than any other practice, and often has been the occasion of bursting very good horses. It uses them also to the disagreeable trick we find in many horses, of running away as soon as ever they come out of the water: and with some it makes them averse to drinking, so that they will rather endure thirst, and hurt themselves by it, than bring on the violent exercise which they remember always follows it. The better way is to walk him a little after he is out of the water, then put him to a gentle gallop for a little while, and after this to bring him to the water again. This should be done three or four times, till he will not drink any more. If there is a hilly place near the watering-place, it is always well to ride up to it; if otherwise, any place is to be chosen where there is free air and sun. That the horse may enjoy the benefit of this, he is not to be galloped, but walked about in this place an hour, and then taken home to the stable. The pleasure the horse himself takes in these airings, when well managed, is very evident; for he will gape, yawn, and shrug up his body: and in these, whenever he would stand still to stale, dung, or listen to any noise, he is not to be hindered from it, but encouraged in every thing of this kind.

The advantages of these airings are very evident; they purify the blood, teach the horse how to make his breathing agree with the rest of the motions of his body, and give him an appetite to his food, which hunters and racers that are kept stalled up are otherwise very apt to lose. On returning from airing, the litter of the stable should be fresh, and by stirring this and whistling he will be brought to stale. Then he is to be led to his stall, and tied up, and again carefully rubbed down; then he should be covered with a linen cloth next his body, and a canvas one over that, made to fit him, and reaching down to his legs. This, as the duke of Newcastle observes, is a custom which we learned of the Turks, who are, of all people, the most nice and careful of their horses. Over this covering there should be put a body-cloth of six or eight straps; this keeps his belly in shape, and does not hurt him. This clothing will be sufficient while the weather is not very sharp; but in severe seasons, when the hair begins to rise and start in the uncovered parts, a woollen cloth is to be added, and this will always prove fully sufficient.

Different horses, and different seasons, make a variety in the degree of clothing necessary; but there always is

is an obvious rule to point out the necessary changes, the roughness of the coat being a mark of the want of clothing, and the smoothness of it a proof that the clothing is sufficient. Therefore if at any time the hair is found to start, it is a notice that some further clothing is to be added.

If the horse sweat much in the night, it is a sign that he is over-fed and wants exercise; this, therefore, is easily remedied. An hour or more, after the horse is come in from his airing, the groom should give him a wisp of clean hay, making him eat it out of his hand; after this let the manger be well cleaned out, and a quartern of oats clean sifted be given him. If he eats up this with an appetite, he should have more given him; but, if he is slow and indifferent about it, he must have no more. The business is to give him enough, but not to cloy him with food.

If the horse gets flesh too fast on this home feeding, he is not to be stinted to prevent it, but only his exercise increased; this will take down his flesh, and at the same time give him strength and wind. After the feeding in the morning is over, the stable is to be shut up, only leaving him a little hay on his litter. He need be no more looked at till one o'clock, and then only rubbed down, and left again to the time of his evening watering, which is five o'clock in the summer, and four in the winter. When he has been watered, he must be kept out an hour or two, if necessary, and taken home and rubbed as after the morning watering. Then he is to have a feed of corn at six o'clock, and another at nine at night; and being then cleaned, and his litter put in order, and hay enough left for the night, he is to be left till morning. This is the direction for one day, and in this manner he is to be treated every day for a fortnight; at the end of which time his flesh will be so hardened, his wind so improved, and his mouth so quickened, and his gallop brought to so good a stroke, that he will be fit to be put to moderate hunting. During the time that he is used to hunting, he must be ordered on his days of rest exactly as he is directed for the fortnight when he is in preparation; but, as his exercise is now greatly increased, he must be allowed more strengthening food, mixing some old split beans at every feeding with his oats.

And, if this is not found to be sufficient, the following bread must be given: let two pecks of old beans and one peck of wheat be ground together, and made into an indifferently fine meal; then knead it into dough with some warm water and a good quantity of yeast; let it lie a time that it may rise and swell, which will make the bread the lighter; then make it into loaves of a peck each, and let it be baked in a slow oven, that it may be thoroughly done without being burnt; when it is taken out of the oven, it must be set bottom upwards to cool: when it is one day old the crust is to be chipped off, and the crumb given him for food. When this is ready, he should have some of it at least once a day; but it is not to be made the only food, but some feeds are to be of oats alone, some of oats and this bread, and some of oats and beans mixed together. The making a variety in this manner being the best of all methods of keeping up the appetite, which is often apt to fail.—The day before the horse is to hunt, he must have no beans, because they are hard of digestion, but only some oats with this bread; or, if he will be brought to eat the bread alone, that will be best of all. His evening feed should on this day be somewhat earlier than usual; and he should be visited the next morning at about four o'clock, when put a quarter of a peck of clean-dressed oats into his locker, pouring into it a quart of good strong toast and ale, mixing the whole well together. When he has done eating, bridle him, and tie him up to the ring and dress him: having dressed, saddle him, throwing his cloth over him, and let him stand till the hounds are ready to go out. Take care not to draw the saddle-girths too tight till you are ready to mount, lest that should cause him to grow sick. When the hounds are unkennelled, (which should not be before sun-rising,) go into the field along with them, and ride your horse gently up and down, till a hare is started, when you are to follow the hounds as the other hunters do; but, remembering it to be the first time of his hunting, he is not so well acquainted with different sorts of grounds as to know how to gallop smoothly and with ease upon them; and for that reason you ought not to put him to above half his speed, that he may learn to carry a steady body, and to manage his legs both upon fallows and green swarth. Neither should you gallop him often, or any long time together, for fear of discouraging him, and causing a dislike to this exercise; and take care to cross fields to the best advantage. You should make up to the hounds at every default, and still keep your horse within the cry of the hounds, that he may be used to the sound; and by so doing, in a very short time he will take such delight and pleasure in their music, that he will ever after be eager to follow them.

When the chase is led over any carpet-ground, or sandy highway, on which your horse may lay out his body smoothly, there you may gallop him for half a mile, to teach him to lay out his body, to gather up his legs, to lengthen and shorten his stroke, according to the different earths he gallops on, such as green swarth, meadow, moor, heath, &c. then to stoop and run more on the shoulders; if amongst mole-hills, or over high ridges and furrows, then to gallop more roundly, or in less compass, that thereby he may strike his furrow clear, and avoid setting his fore-feet in the bottom of it, and by that means fall over; for, though he should happen to set his feet in a furrow, yet carrying his body so round, and resting on the hand in his gallop, would prevent his falling; and to this perfection, nothing but use, and such moderate exercise, can bring him.

According to these directions you may hunt till about three o'clock in the day, at which time ride him home in a foot-pace, as you came out in the morning; and be sure that you let him walk out of the field; and, as you are going home, consider whether he has sweat a little, (for you must not let him sweat much the first time;) but, if not, then gallop him gently on some skelping earth, till he sweats at the roots of his ears, a little on his neck, and in his flank; but it must be done of

of his own voluntary motion, without the compulsion of whip or spur; then have him home and stable him, and by no means walk him in hand to cool him, for fear of his cooling too fast; nor walk him, for fear of causing an obstruction of the natural course of the humours, and by that means bring an inflammation in his legs, which is the original cause of the scratches.

His stall being well littered against he comes home, set him up, tying his head to the ring with the bridle, and then rub him well with dry straw all over his head, neck, fore-bowels, belly, flank, buttocks, and legs, and after that rub his body with a dry cloth, till he has not a wet hair left about him; after you have done, take off his saddle, and rub the place where the saddle was, dry in like manner, and clothe him immediately with his ordinary clothes, lest he take cold: and, if you suppose him very hot, throw a spare cloth over him, that he may not cool too fast, which you may abate when you please, and so let him stand on his snaffle two hours or better, now and then stirring him in his stall with your whip, to prevent him from growing stiff in the legs and joints.

When that time is expired, and you think him thoroughly cool, draw his bridle, rub his head, pick his feet from dirt or gravel, and give him a quart or three pints of sifted oats, mixed with a handful of clean dressed hemp-seed; but give him not more than the quantity prescribed, for fear of taking away his stomach, which will be very much weakened through the heat of his body, and want of water. Then take off the spare cloth for fear of keeping him hot too long, and, when he has eaten his corn, throw a good quantity of hay, clean dusted, on his litter, and let him rest two or three hours, or thereabouts. Having prepared him a good mash made of half a peck of malt, well ground, and boiling hot water, so much as the malt will sweeten and the horse will drink, stir them well together, and cover it over with a cloth, till the water has extracted the strength of the malt, which will be almost as sweet as honey, and feel ropy, like bird lime; being but little more than blood warm give it to the horse, but not before, lest the steam go up his nostrils and offend him; and, when he has drank up his water, let him, if he please, eat the malt too. But, if he refuses to drink it, you must not give him any other water that night, but place this drink in some part of his stall, so that he may not throw it down, and let it stand by him all night, that he may drink it when he pleases. This mash, or, as it is called, horse-caudle, will comfort his stomach, and keep his body in a due temperate heat after his day's hunting; it will cleanse and bring away all manner of grease and gross humours which have been dissolved by the day's labour; and the fume of the malt-grains, after he has drank the water, will disperse the watery humours, which might otherwise annoy his head, and is allowed, by all skilled in horses, to be very advantageous on that account.

After he has eaten his mash, strip him of his clothes, and run him over with a curry-comb and brush, hair-patch, and woollen-cloth, and clothe him up again; and cleanse his legs, as well as his body, of all dirt and filth which may annoy them, and then remove him into another stall, (that you may not wet his litter) and bathe his legs all over from the knees, with warm beef-broth, or with a quart of warm urine, in which four ounces of saltpetre has been dissolved; then rub his legs dry, set him again to his stall, and give him a good home-feeding of oats, or bread, which he likes best, or both; and, having shaken a good quantity of litter under him, that he may rest the better, and thrown him hay enough in his rack for all night, shut the stable door close, and leave him to rest till the morning.

About six or seven o'clock the next morning go to him again, but do not disturb him, for the morning's rest is as refreshing to a horse as to a man; but, when he rises of his own accord, go to him, put back his dung from his litter, and observe what colour it is of, whether it be greasy, and shine outwardly, and also break it with your feet, to see if it be so inwardly, for, if it be greasy and foul, (which you may know by its shining outwardly, and by the spots like soap that will appear within) or if it appear of a dark brown colour, and harder than it was, it is a token that the hunting of the day before has done him good, by dissolving part of the inward glut which was within him; and, therefore, the next time you hunt, you should increase his labour but a little. But if you perceive no such symptoms, but that his dung appears bright, but rather soft than hard, without grease, and in a word, that it holds the same pale yellow colour that it did before he hunted, then it is a sign that a day's hunting made no dissolution, but that his body remains in the same state still, and, therefore, the next day's hunting, you may almost double his labour.

As to his feeding, you must not forget to change his food, by giving him one while bread, another oats, and a third time oats and beans, which you find he likes likes best; always remembering, that variety will sharpen his appetite; and bread being his chief food, it being more nourishing and strong than the others, feed him the oftener with it. And observe his digestion, whether it be quick or slow. If you find him quick, and that he retains this food but a little while, then only chip his bread lightly; but if it be slow, and he retains it long, then cut away all the crust, and feed him only with the crumb; for that, being light of digestion, is soon converted into chyle and excrements, but the crust being not so soon digestible, requires, by reason of its hardness, longer time before it is concocted.

The next day, after your horse has rested, you may hunt him again as you did the first day, observing, from the remarks you have made, to hunt him, more or less, according as you find his temper and constitution; and when you come home, put in practice the rules above given; under which you may hunt him three times a week for a fortnight together, but do not fail to give him his full feeding, and no other scourings but mashes and hemp-seed, which is equal in its virtue with the former, and only carries off superfluous humours in the dung.

Horses at advanced stages are subject to disorders, for which brisk purges are recommended, and require a more

more peculiar mode of counteraction; as horses subject to, or labouring under, inveterate cracks in the heels; oozing indications of or palpable grease; cutaneous eruptions, vascular knots, or tubercles, the evident effects of plenitude; worms, or fluctuating pains in the limbs, occasioning alternate lameness in one part or another. In all which cases it is to be observed, horses should never have their exercise increased to the least degree of violent exertion. If the horses have not six or eight miles to the hounds on the morning of hunting, they should be walked at least an hour, or an hour and a half, before they appear at the place of meeting: the consistency of their having sufficient time to unload the frame, by frequency of evacuation, is extremely evident. The first burst, with either deer or fox, is generally severe, and not unfrequently of long duration, in which too much tenderness cannot be bestowed upon your horse: from whose perfections and perseverance only, you can derive the enjoyment of the chase; and the more moderately a horse is exerted in the early part of the day, the greater probability you insure of seeing the end of it.

On your return from hunting (whether after a long or short chase), the mode of management is critically the same; your horses legs and feet should be immediately washed with warm water: and, at the same time, inspected, whether they have received any injury by over-reaches, stubs, or in lacerations between hair and hoof; while this is doing, let a portion of hay be laid before him, and immediately after a pail full of water slightly warm, and then let the usual ceremony of dressing, feeding, oiling, stopping, and other minutiæ of the stable, be gone through.

By this time the horse will be drawn so clean, his flesh will be so enseamed, and his wind so improved, that he will be able to bear a chase of three or four miles without blowing or sweating; and you may find by his caul and flank, as well as his ribs, that he is in an indifferent good state of body, and therefore you must increase his labour, and by that means you can judge what he will be able to do, and whether or no he will ever be fit for running for plates, or match.

When your horse is set over-night, and fed early in the morning, as has been directed, then go into the field with him, and when he is empty, (as he will be by the time you have started your game) follow the hounds at a good round rate, as at have speed, and so continue till you have either killed or lost your first hare. This will so rack your horse, and he will have so emptied himself, that he will be in a fit condition to be rid the next chase briskly, which, as soon as it is begun, you may follow the hounds at three-quarters speed, and as near as is fit for a good horseman and skilful huntsman; but be sure to take care not to strain him.

During this day's riding, you ought to observe nicely your horse's sweat under his saddle and fore-bowels, and if it appears white, like froth or soap-suds, it is a sign of inward glut and foulness, and that your day's exercise was enough for him, therefore ride him home, and order him as before directed. But, if it has happened that your exercise has been so easy as not to sweat your horse thoroughly, then you ought to ride him briskly, and afterwards cool him in the field; then ride him home, and order him as has been before directed.

When you take off your horse's bridle, give him a good quantity of rye-bread, instead of hemp-seed and oats, and for that purpose bake a peck-loaf; for, this being cold and moist, will be of use to cool his body after his labour, and prevent costiveness, to which you will find him addicted; then give him hay, and afterwards a mash, and order him in all things as before. The next morning, if you perceive by his dung that his body is distempered, and that he is hard and bound, then take some crumbs of your rye-bread, and work it with as much sweet fresh butter as will make it into a paste, and make it up into balls about the bigness of a large walnut, of which give him five or six in a morning fasting. After this put the saddle on, and gallop him gently on some grass-plat or close that is near at hand, till he begin to sweat under his ears; and then take him into the stable again, rub him well, and throw a spare cloth over him, a good quantity of fresh litter under him, and let him stand two hours on the bridle; give him a quantity of rye-bread, and some hay to chew upon, and give him a warm mash, feed him with bread and corn as much as he will eat, and also as much hay as he will eat. The next day water him abroad, and order him as is before directed for days of rest. The next day you may hunt him again, but not so hard as you did the time before, till the afternoon; but then ride him after the hounds briskly, three-quarter speed, that he may sweat heartily: then cool him a little, and ride him home, and, as soon as he is come into the stable, give him two or three balls, as big as walnuts, of the following excellent scouring: Take of butter, eight ounces; lenitive electuary, four ounces; gromwel, broom, and parsley-seeds, of each two ounces; anniseeds, liquorice, and cream of tartar, of each one ounce; of jalap, two ounces; reduce the seeds to a powder, then stir them into a paste with the electuary and butter, knead it well together, put it into a pot, and keep it close stopped for use.

As soon as the horse has taken these balls, rub him dry, dress him, clothe him warm, let him stand two or three hours upon the snaffle; afterwards give him two or three handfuls of rye-bread, and order him as you been directed before, as to hay, provender, mash, &c. and so leave him till next morning.

In the morning take notice of his dung, whether it still retain the true colour, or be dark, or black, or red and high-coloured: in the next place, whether it be loose and thin, or hard and dry. If it be of a pale yellow, which is the right colour, it is a sign of health, strength, and cleanliness; if it be dark or black, then it is a sign there is grease and other ill humours stirred up, which are not yet evacuated: if it be red and high-coloured, then it is a sign that his blood is feverish and distempered, by means of inward heat: if it be loose and thin, it is a sign of weakness; but if hard and dry, it shews the horse to be hot inwardly, or else that he is a foul feeder: but if his dung be in a medium, between hard and soft, and smell strong, it is a sign of

health

health and vigour. When these observations have been made, then feed, dress, water, &c. as on his usual days of rest, always letting him have variety, and his fill of corn and bread.

The next day take him abroad into the fields again, but do not by any means put him to any labour more than riding him gently after the hounds; for the intent of this day's exercise is only to keep him in breath, and procure him an appetite. When the day is near spent, ride him home without the least sweat, and then order him as at other times, except that you are not to give him any scourings, or rye-bread. The next day order him in every respect as on other days of rest; and, as you have spent this week, you must spend the next, without any alteration; and by this time, and this management, you may depend upon it that your horse has been drawn clean enough for ordinary hunting. So that afterwards, only taking care to hunt your horse with moderation twice or three times a week, at your pleasure; and according to the constitution of your horse's body; you need not question to have him in as good state and strength as you can desire, without danger of his wind, eye-sight, feet, or body.

Having thus drawn your horse clean, jointly by nature and art, you will perceive those signs before-mentioned very plainly; for his flesh on his short ribs and buttocks will be as hard as brawn, his flanks will be thin, and nothing to be felt but a double skin, and chaps so clean from fat, glot, or kernels, that you may hide your fists in them; and, above all, his exercise will give plain demonstration, of the efficacy of this method of ordering him, for he will run three or four miles, three-quarters speed, without sweating, or scarce so much as blowing. When the horse has been brought to this state, you must use no more scourings after hunting, because nature has nothing to work upon but rye-bread and mash, except the horse be now and then troubled with some little dulness in his head; then bruise a little mustard-seed in a fine linen rag, and steep it in a quart of strong ale three or four hours, and, untying the rag, mix the mustard-seed and the ale with a quarter of a peck of oats, and give it to him.

In general, after your horse is thus brought into perfect hunting order, there is nothing so well calculated for comforting and giving him wind and courage, as toasted bread and wine, or toasted bread and ale, just before going out of the stable. This was the practice of an old huntsman of mine, who, though sometimes obliged to put up with an indifferent horse, was, by this method, always sure to be in at the death.

If, after hunting or racing, your horse should take a violent cold, which will sometimes unavoidably happen, let the following comfortable drench be given. Take a pint of ale and set it over a gentle fire, then dissolve in it one ounce of Spanish liquorice, and one ounce of sugar-candy, put in one ounce of true diapente made with myrrh, one ounce of anniseed powder, one ounce of London treacle, two ounces of sweet-oil, and two drachms of balsam of sulphur. A famous running-horse, belonging to GERMANICUS SHEPPARD, Esq. was cured by this receipt of a most violent cold, and bleeding at the nose, that had been of near twelve months standing. The above gentleman gave it me on a promise that I should not part with it to any other person during his life, or while he kept running-horses. He had himself procured it by art, having offered his groom (in whose custody it was) ten guineas for it; but, on his refusing to take the money, he employed his under-groom to watch an opportunity of taking a copy of it, which he did shortly afterwards. I have frequently administered it to my hunters, and it has never been known to fail in its efficacy.

Of the Management of Hounds.

Before we speak of the methods proper to be used for this purpose, it will be necessary to point out the qualities which sportsmen desire to meet with in these animals. It is generally understood, that hounds of the middle-size are the most proper, it being remarked, that all animals of that description are stronger than either such as are very small or very large. The shape of the hound ought to be particularly attended to; for, if he be not well proportioned, he can neither run fast nor do much work. His legs ought to be straight, his feet round, and not very large; his shoulders back; his breast rather wide than narrow; his chest deep, his back broad, his head small, his neck thin; his tail thick and bushy, and if he carry it well so much the better. None of those young hounds which are *out at the elbows*, or such as are weak from the knee to the foot, should ever be taken into the pack. That the pack may look well, it is proper that the hounds should be as much as possible of a size; and, if the animals be handsome at the same time, the pack will then be perfect. It must not, however, be thought, that this contributes any thing to the goodness of a pack; for very unhandsome packs, consisting of hounds entirely different in size and colour, have been known to afford very good sport. It is only necessary that they should run well together; to which indeed an uniformity in size and shape would seem to contribute in some degree. The pack that can run ten miles, or any other considerable space, in the shortest time, may be said to go fastest, though the hounds, taken separately, might be considerably inferior to others in swiftness. A pack of hounds, considered in a collective body, go fast in proportion to the excellence of their noses, and the head they carry. Packs which are composed of hounds of various kinds seldom run well. When the packs are very large, the hounds are seldom sufficiently hunted to be good; twenty or thirty couple, therefore, or at most forty, will be abundantly sufficient for the keenest sportsman in this country, as thus he may be enabled to hunt three or even four times a week. The number of hounds to be kept must, however, in a considerable degree, depend on the strength of the pack, and the country in which you hunt. They should be left at home as seldom as possible; and too many old hounds should not be kept. None ought to be kept above five or six seasons, though this also is somewhat uncertain, as we have no rule for judging how long a hound will last.

In breeding of hounds considerable attention ought to be paid to the dog from whom you breed. All such are to be rejected as have a tender nose, as are babblers or skirters. An old dog should never be put to an old bitch; nor should any attempts be made to cross the breed unless in a proper and judicious manner. Mr. BECKFORD informs us, that he has seen fox-hounds bred out of a Newfoundland dog and a fox-hound bitch; the whelps were monstrously ugly, and had other bad qualities besides. The cross most likely to be of service to a fox-hound is the beagle. The reason of crossing the breed sometimes is, that the imperfections of one may sometimes be remedied by another. The months of *January*, *February*, and *March*, are the best for breeding; late puppies seldom thrive. After the females begin to grow big with young, it will not be proper to let them hunt any more, or indeed to remain for a much longer time in the kennel. Sometimes these animals will have an extraordinary number of whelps. Mr. BECKFORD informs us, that he has known a bitch have fifteen puppies at a litter; and he assures us, that a friend of his informed him, that a hound in his pack brought forth sixteen, all of them alive. In these cases it is proper to put some of the puppies to another bitch, if you want to keep them all; but, if any are destroyed, the best coloured ought to be kept. The bitches should not only have plenty of flesh, but milk also; and the puppies should not be taken from them till they are able to take care of themselves: their mothers will be relieved when they learn to lap milk, which they will do in a short time. After the puppies are taken away from their mothers, the litter should have three purging-balls given them, one every other morning, and plenty of whey the intermediate day. If a bitch bring only one or two puppies, and you have another that will take them, by putting the puppies to her the former will soon be fit to hunt again. She should, however, be first physicked, and it will also be of service to anoint her dugs with brandy and water.

Whelps are very liable to the distemper to which dogs in general are subject, and which frequently makes great havock among them at their walks; and is supposed, by Mr. BECKFORD, to be owing to the little care that is taken of them. "If the distemper (says he) once gets among them, they must all have it: yet, notwithstanding that, as they will be constantly well fed, and lie warm (in a kennel built on purpose) I am confident it would be the saving of many lives. If you should adopt this method, you must remember to use them early to go in couples: and, when they become of a proper age, they must be walked out often; for, should they remain confined, they would neither have the health, shape, or understanding, which they ought to have. When I kept harriers, I bred up some of the puppies at a distant kennel; but, having no servants there to exercise them properly, I found them much inferior to such of their brethren as had the luck to survive the many difficulties and dangers they had undergone at their walks; these were afterwards equal to any thing, and afraid of nothing; whilst those, that had been nursed with so much care, were weakly, timid, and had every disadvantage attending private education. I have often heard, as an excuse for hounds not hunting a cold scent, that they were too high-bred. I confess I know not what that means: but this I know, that hounds are too frequently ill-bred to be of any service. It is judgment in the breeder, and patience afterwards in the huntsman, that makes them hunt.

"When young hounds are first taken in, they should be kept separate from the pack; and, as it will happen at a time of the year when there is little or no hunting, you may easily give them up one of the kennels and grass-court adjoining. Their play frequently ends in a battle; it therefore is less dangerous where all are equally matched.—If you find that they take a dislike to any particular hound, the safest way will be to remove him, or it is probable they will kill him at last. When a feeder hears the hounds quarrel in the kennel, he halloos to them to stop them; he then goes in among them, and flogs every hound he comes near. How much more reasonable, as well as efficacious, would it be, were he to see which were the combatants before he speaks to them. Punishment would then fall, as it ought, on the guilty only. In all packs there are some hounds more quarrelsome than the rest; and it is to them we owe all the mischief that is done. If you find chastisement cannot quiet them, it may be prudent to break their holders; for, since they are not necessary to them for the meat they have to eat, they are not likely to serve them in any good purpose. Young hounds should be fed twice a day, as they seldom take kindly to the kennel-meat at first, and the distemper is most apt to seize them at this time. It is better not to round them till they are thoroughly settled; nor should it be put off till the hot weather, for then they would bleed too much. It may be better perhaps to round them at their quarters, when about six months old; should it be done sooner, it would make their ears tuck up. The tailing of them is usually done before they are put out; it might be better, perhaps, to leave it till they are taken in. Dogs must not be rounded at the time they have the distemper upon them, as the loss of blood will weaken them too much.

"If any of the dogs be thin over the back, or any more quarrelsome than the rest, it will be of use to cut them: I also spay such bitches as I shall not want to breed from: they are more useful, are stouter, and are always in better order; besides, it is absolutely necessary if you hunt late in the spring, or your pack will be very short for want of it. The latter operation, however, does not always succeed; it will be necessary therefore to employ a skilful person, and one on whom you can depend; for, if it be ill done, though they cannot have puppies, they will go to heat notwithstanding. They should be kept low for several days before the operation is performed, and must be fed on thin meat for some time after."

It is impossible to determine how many young hounds ought to be bred in order to keep up the pack, as this depends altogether on contingencies. The deficiencies of one year must be supplied by the next: but it is probable, that from thirty to thirty-five couple of old hounds, and from eight to twelve couple of young ones, will answer the purpose where no more than forty couple

couple are to be kept. A considerable number, however, ought always to be bred; for it is undoubtedly and evidently true, that those who breed the greatest number of hounds must expect the best pack.

After the hounds have been rounded, become acquainted with the huntsman, and answer to their names, they ought to be coupled together, and walked out among sheep. Such as are particularly ill-natured ought to have their couples loose about their necks in the kennel till they become reconciled to them. The most stubborn ought to be coupled to old hounds, rather than to young ones; and two dogs should not be coupled together when you can avoid it. As young hounds are awkward at first, a few ought only to be set out at a time with people on foot, and they will soon afterwards follow a horse. When they have been walked out often in this manner amongst the sheep, they should be uncoupled by a few at a time, and those chastised who offer to run after the sheep; but it will be difficult to reclaim them after they have once been allowed to taste blood. Some are accustomed to couple the dogs with a ram, in order to break them from sheep; but this is very dangerous for both parties. Mr. BECKFORD relates a story of a nobleman who put a large ram into his kennel in order to break his hounds from sheep: but, when he came some time after to see how nobly the ram defended himself, he found him entirely eaten up, and the hounds gone to sleep after having filled their bellies.

When hounds are to be aired, it is best to take them out separately, the old ones one day, and the young another; though, if they are to have whey from a distant dairy, both old and young ones may be taken out together, observing only to take the young hounds in couples when the old ones are along with them. Young hounds are always apt to fall into mischief, and even old ones, when idle, will be apt to join them. Mr. BECKFORD mentions a whole pack running after a flock of sheep through the mere accident of a horse's falling, and then running away.

With regard to the first entering of hounds to a scent, our author gives such directions as have subjected him to a severe charge of inhumanity. We shall give them in his own words; "You had better enter them at their own game; it will save much trouble afterwards. Many dogs, I believe, like that scent best which they were first blooded to: but, be this as it may, it is most certainly reasonable to use them to that which it is intended they should hunt. It may not be amiss first, when they begin to hunt, to put light collars on them. Young hounds may easily get out of their knowledge; and shy ones, after they have been much beaten, may not choose to return home. Collars, in that case, may prevent their being lost.—You say, you like to see your young hounds run a trail-scent.—I have no doubt but that you would be glad to see them run over an open down, where you could so easily observe their action and their speed. I cannot think the doing of it once or twice could hurt your hounds; and yet, as a sportsman, I dare not recommend it to you. All that I can say is, that it would be less bad than entering them at a hare. A cat is as good a trail as any; but on no account should any trail be used after your hounds are stooped to a scent. I know an old sportsman who enters his young hounds first at a cat, which he drags along the ground for a mile or two, at the end of which he turns out a badger, first taking care to break his teeth: he takes out about a couple of old hounds along with the young ones to hold them on. He never enters his young hounds but at vermin; for, he says, "Train up a child in the way that he should go, and when he is old he will not depart from it!"

Hounds ought to be entered as soon as possible, though the time must be uncertain, as it depends on the nature of the country in which they are. In corn countries hunting may not be practicable till the corn is cut down; but you may begin sooner in grass-countries, and at any time in woodlands. "If (says Mr. BECKFORD) you have plenty of foxes, and can afford to make a sacrifice of some of them for the sake of making your hounds steady, take them first where you have least riot, putting some of the steadiest of your old hounds among them. If in such a place you are fortunate enough to find a litter of foxes, you may assure yourself you will have but little trouble with your young hounds afterwards. If, owing to a scarcity of foxes, you should stoop your hounds at a hare, let them by no means have the blood of her; nor, for the sake of consistency, give them encouragement. Hare-hunting has one advantage;—hounds are chiefly in open ground, where you can easily command them; but, notwithstanding that, if foxes be in tolerable plenty, keep them to their own game.—Frequent hallooing is of use with young hounds; it keeps them forward, prevents their being lost, and hinders them from hunting after the rest. The oftener, therefore, that a fox is seen and hallooed, the better. I by no means, however, approve of much hallooing to old hounds; though it is true there is a time when hallooing is of use, a time when it does hurt, and a time when it is perfectly indifferent: but long practice and great attention to hunting can only teach the application.

"Hounds at their first entrance cannot be encouraged too much. When they are become handy, love a scent, and begin to know what is right, it will be then soon enough to chastise them for what is wrong; in which case one severe beating will save a great deal of trouble. When a hound is flogged, the whipper-in should make use of his voice as well as his whip. If any be very unsteady, it will not be amiss to send them out by themselves when the men go out to exercise their horses. If you have hares in plenty, let some be found sitting, and turned out before them; and you will find that the most riotous will not run after them. If you intend them to be steady from deer, they should often see deer, and then they will not regard them; and if, after a probation of this kind, you turn out a cub before them, with some old hounds to lead them on, you may assure yourself, they will not be unsteady long."

It is proper to put the young hounds into the pack when they stoop to a scent, become handy, know a rate, and stop easily. A few only are to be put to the pack at a time; and it is not adviseable even to begin this till the pack have been out a few times by themselves, and

"are gotten well in blood." They ſhould be low in fleſh when you begin to hunt; the ground being generally hard at that time, ſo that they are liable to be ſhaken. By hounds being handy, our author means their being ready to do whatever is required of them; and, particularly, when caſt, to turn eaſily which way the huntſman pleaſes.

Mr. Beckford begins to hunt with his young hounds in *Auguſt*. The huntſman in the preceding months keeps his old hounds healthy by giving them proper exerciſe, and gets his young hounds forward; and for this purpoſe nothing anſwers ſo well as taking them frequently out. The huntſman ſhould go along with them, get frequently off his horſe, and encourage them to come to him:—too much reſtraint will frequently incline the hounds to be rioious. Our author frequently walks out his hounds among ſheep, hares, and deer. Sometimes he turns down a cat before them, which they kill; and, when the time of hunting approaches, he turns out young foxes or badgers; taking out ſome of the moſt ſteady of his old hounds to lead on the young ones. Small covers and furze-brakes are drawn with them to uſe them to a halloo, and to teach them obedience. If they find improper game and hunt it, they are ſtopped and brought back; and, as long as they will ſtop at a rate, they are not chaſtiſed. At ſuch times as they are taken out to air, the huntſman leads them into the country in which they are deſigned to hunt; by which means they acquire a knowledge of the country, and cannot miſs their way home at any time afterwards. When they begin to hunt, they are firſt brought into a large cover of his own, which has many ridings cut in it; and where young foxes are turned out every year on purpoſe for them. After they have been hunted for ſome days in this manner, they are ſent to more diſtant covers, and more old hounds added to them. There they continue to hunt till they are taken into the pack, which is ſeldom later than the beginning of *September*; for by that time they will have learned what is required of them, and ſeldom give much trouble afterwards. In *September* he begins to hunt in earneſt: and after the old hounds have killed a few foxes, the young ones are put into the pack, two or three couple at a time, till all have hunted. They are then divided: and, as he ſeldom has occaſion to take in more than nine or ten couple, one half are taken out one day, and the other the next, till they are ſteady.

To render fox-hunting complete, no young hounds ſhould be taken into the pack the firſt ſeaſon;—a requiſite too expenſive for moſt ſportſmen. The pack ſhould conſiſt of about forty couple of hounds, that have hunted one, two, three, four, or five ſeaſons. The young pack ſhould conſiſt of about twenty couple of young hounds, and an equal number of old ones. They ſhould have a ſeparate eſtabliſhment, and the two kennels ſhould not lie too near one another. When the ſeaſon is over, the beſt of the young hounds ſhould be taken into the pack, and the draught of old ones exchanged for them. Many muſt be bred to enable a ſportſman to take in twenty couple of young hounds every ſeaſon. It will always be eaſy to keep up the number of old hounds; for when your own draft is not ſufficient, drafts from other packs may be obtained, and at a ſmall expence. When young hounds are hunted together for the firſt ſeaſon, and have not a ſufficient number of old ones along with them, it does more harm than good.

Of the Kennel.

Mr. Beckford, in his *Eſſay on Hunting*, is very particular in deſcribing a kennel for hounds; ſince it is indiſpenſably neceſſary for keeping thoſe animals in proper health and order. "It is true (ſays he), hounds may be kept in barns and ſtables; but thoſe who keep them in ſuch places can beſt inform you whether their hounds are capable of anſwering the purpoſes for which they are deſigned. The ſenſe of ſmelling is ſo exquiſite in a hound, that I cannot but ſuppoſe that every ſtench is hurtful to it. Cleanlineſs is not only abſolutely neceſſary to the noſe of the hound, but alſo to the preſervation of his health. Dogs are naturally cleanly; and ſeldom, if they can help it, dung where they lie. Air and freſh ſtraw are neceſſary to keep them healthy. They are ſubject to the mange; a diſorder to which poverty and naſtineſs will very much contribute. The kennel ſhould be ſituated on an eminence; its front ought to be to the eaſt, and the courts round it ought to be wide and airy to admit the ſunbeams at any time of the day. It is proper that it ſhould be neat without and clean within; and it is proper to be near the maſter's houſe; for obvious reaſons. It ought to be made large enough at firſt, as any addition to it afterwards may ſpoil it in appearance at leaſt." Two kennels, however, in our author's opinion, are abſolutely neceſſary to the well-being of hounds: "When there is but one (ſays he), it is ſeldom ſweet; and, when cleaned out, the hounds, particularly in winter, ſuffer both while it is cleaning and afterwards as long as it remains wet."

When the feeder firſt comes to the kennel in a morning, he ſhould let out the hounds into the outer-court, and, in bad weather, ſhould open the door of the hunting-kennel (that in which the hounds deſigned to hunt the next day are kept), leſt want of reſt ſhould incline them to go into it. The lodging-room ſhould then be cleaned out, the doors and windows of it opened, the litter ſhaken up, and the kennel made ſweet and clean before the hounds return to it again—The floor of each lodging-room ſhould be ſloped on both ſides to run to the centre, with a gutter left to carry off the water, that when they are waſhed they may be ſoon dry. If water ſhould remain through any fault in the floor, it muſt be carefully mopped up; for damps are always very prejudicial.

The kennel ought to have three doors; two in the front and one in the back; the laſt to have a lattice-window in it with a wooden ſhutter, which is conſtantly to be kept cloſed when the hounds are in, except in ſummer, when it ſhould be open all day.

At the back of Mr. Beckford's kennel is a houſe thatched and furzed up on the ſides, big enough to contain at leaſt a load of ſtraw. Here ſhould be a pit ready

ready to receive the dung, and a gallows for the flesh. The gallows should have a thatched roof, and a circular board at the posts to prevent vermin from climbing up. He advises to inclose a piece of ground adjoining to the kennel for such dog-horses as may be brought alive; it being sometimes dangerous to turn them out where other horses go, on account of the disorders with which they may be infected. In some kennels a stove is made use of; but where the feeder is a good one, Mr. BECKFORD thinks that a mop, properly used, will render the stove unnecessary. "I have a little hay-rick (says he) in the grass-yard, which I think is of use to keep the hounds clean and fine in their coats. You will frequently find them rubbing themselves against it. The shade of it is also useful to them in summer. If ticks at any time be troublesome in your kennel, let the walls of it be well washed; if that should not destroy them, the walls must then be white-washed."

Besides the directions already given concerning the situation of the kennel, our author recommends it to have a stream of water in its neighbourhood, or even running through it if possible. There should also be moveable stages on wheels for the hounds to lie on. The soil ought, at all events, to be dry.

Instructions for the Huntsman.

Having already given sufficient instructions to the huntsman for hunting the fox, under that article, we shall now give some hints to the huntsman who has the management of a pack of harriers, and who wishes to be expert in hunting the hare. For this purpose he must never forget that every hare has her particular play; and that play is occasioned or changed according to the variation of wind and weather, the weight of the air, the nature of the ground, and the degrees of eagerness with which she is pursued. Nor is he to be unmindful of the numerous accidents she may meet with in her way, to turn her out of her course, to cover her flight, to quicken her speed, or to furnish her with an opportunity of new devices. It is not enough to have a general knowledge of these things before the game is started, but in the heat of action, when most tempted to be in raptures with the sound of the horns, the melody of the cry, and the expectation of success, every step we make we must calmly observe the alteration of soil, the position of the wind, the time of the year, and no less take notice with what speed she is driven, how far she is likely to keep on forward, or to turn short behind; whether she has not been met by passengers, frightened by curs, intercepted by sheep; whether an approaching storm, a rising wind, a sudden blast of the sun, the going off of the frost, the repetition of soiled ground, the decay of her own strength, or any other probable turn of affairs, has not abated or altered the scent.

There are other things still no less necessary to be remembered than the former; as the particular quality and character of each dog; whether the present leaders are not apt to over-run it; which are most inclined to stand upon the double; which are to be depended on in the highway, on the ploughed ground, or a bare turf, in an uncertain scent, in the crossing of fresh game, through a flock of sheep, upon the foil, or stole-back. The size also and the strength of the hare will make a difference; nor must the hounds themselves be followed so closely, or so loudly cherished, when fresh and vigorous, as after they have run off their speed and mettle, and begin to be tired.

It is necessary for a young huntsman, when the scent lies well, always to keep himself pretty far behind. At such a time, especially if it be against the wind, it is impossible for the poor hare to hold it forward; nor has she any trick or refuge for her life, but to stop short by the way, and, when all are past, to steal immediately back, which is often the occasion of an irrevocable fault, in the midst of the warmest sport and expectations, and is the best trick the poor hare has for her life in scenting weather: whereas, if the huntsman were not too forward, he would have the advantage of seeing her steal off, and turning her aside, or more probably, the pleasure of the hounds returning and thrusting her up in view.

It is very common for the fleetest hound to be the best favourite, though it would be much better if he was hanged, or exchanged. Be a dog in his own nature ever so good, yet he is not good in that pack that is too slow for him. There is at most times work enough for every one of the train, and every one ought to bear his part; but this is impossible for the heavy ones to do, if they are out of breath by the unproportionable speed of a light-heeled leader. For it is not enough that they are able to keep up, which a true hound will labour hard for, but they must be able to do it with ease, with retention of breath and spirits, and with their tongues at command. It must never be expected that the indentures of the hare can be well covered, or her doubles struck off, (nor is the sport worth a farthing,) if the harriers run yelping in a long string, like deer or fox hounds.

Another thing necessary is, to hang up every liar and chanter, not sparing even those that are silly and trifling, without noise or sagacity. It is common enough in numerous kennels to keep some for their music or beauty; but this is perfectly wrong. It is a certain maxim that every dog which does no good does a great deal of hurt; they serve only to foil the ground, and confound the scent; to scamper before and interrupt their betters in the most difficult points. And we may venture to affirm, by long experience, that four or five couple, all good and trusty hounds, will do more execution than thirty or forty, where a third of them are eager and headstrong, and, like coxcombs among men, noisy in doing nothing.

Above all, abhor joining your packs with strangers, for this is the way to spoil and debauch the staunchest hounds, to turn the best mettled into mad-headed gallopers, liars, and chatterers, and to put them on nothing but out-running their rivals, and over-running the scent. The emulation of leading (in hounds and their masters) has been the utmost ruin of many a good day's sport. Nor are strange huntsmen of much better consequence than strange companions; for, as the skill and excellence of these animals consist in use and habit, they

they ſhould always be accuſtomed to the ſame voice, the ſame notes or hallooings, and the ſame turns of chiding, cheriſhing, preſſing, or recalling; nor ſhould the country fellows be allowed, in their tranſports, to extend their throats.

Nor is it good to encourage change of game, becauſe mere 'ſquires would be at a great loſs to kill ſome of their time, had they nothing to kill, when hares are out of ſeaſon. However, I am well ſatisfied, that the beſt harriers are thoſe that know no other. Nor is it adviſeable to let them change for a freſh hare, as long as they can poſſibly follow the old one; nor to take off their noſes from the ſcent they are upon, for the cutting ſhorter or gaining of ground. This laſt is the common trick with pot-hunters, but, as it is unfair and barbarous to the hare, ſo you will ſeldom find it of advantage to the hounds.

Hunting Terms.

The gentlemen and maſters of the ſport have invented a ſet of terms which may be called the *Hunting-language*. The principal are thoſe which follow:

1. For beaſts as they are in company.—They ſay, a *herd* of harts, and all manner of deer. A *bey* of roes. A *ſounder* of ſwine. A *rout* of wolves. A *richeſs* of martens. A *brace* or *leaſh* of bucks, foxes, or hares. A *couple* of rabbits or coneys.

2. For their lodging.—A hart is ſaid to *harbour*. A buck *lodges*. A roe *beds*. A hare *ſeats* or *forms*. A coney *ſits*. A fox *kennels*. A marten *trees*. An otter *watches*. A badger *earths*. A boar *couches*.—Hence, to expreſs their diſlodging, they ſay, *Unharbour* the hart. *Rouſe* the buck. *Start* the hare. *Bolt* the coney. *Unkennel* the fox. *Untree* the marten. *Vent* the otter. *Dig* the badger. *Rear* the boar.

3. For their noiſe at rutting-time.—A hart *belleth*. A buck *groans* or *troats*. A roe *bellows*. A hare *beats* or *taps*. An otter *whines*. A boar *freams*. A fox *barks*. A badger *ſhrieks*. A wolf *howls*. A goat *rattles*.

4. For their copulation.—A hart or buck goes to *rut*. A roe goes to *tourn*. A boar goes to *brim*. A hare or coney goes to *buck*. A fox goes to *clickitting*. A wolf goes to *match* or *make*. An otter *hunteth* for his kind.

5. For the footing and treading.—Of a hart, we ſay the *ſlot*. Of a buck, and all fallow-deer, the *view*. Of all deer, if on the graſs and ſcarce viſible, the *foiling*. Of a fox, the *print*; and of other the like vermin, the *footing*. Of an otter, the *marks*. Of a boar, the *track*. The hare, when in open field, is ſaid to *ſore*; when ſhe winds about to deceive the hounds, ſhe *doubles*; when ſhe beats on the hard highway, and her footing comes to be perceived, ſhe *pricketh*: in ſnow it is called the *trace* of the hare.

6. The tail of a hart, buck, or other deer, is called the *ſingle*. That of a boar, the *wreath*. Of a fox, the *bruſh* or *drag*; and the tip at the end, the *chape*. Of a wolf, the *ſtern*. Of a hare and coney, the *ſcut*.

7. The ordure or excrement of a hart and all deer, is called *fewmets* or *fewmiſhing*. Of a hare, *crotiles* or *crotiſing*. Of a boar, *leſſes*. Of a fox, the *billitting*; and of other the like vermin, the *fuants*. Of an otter, the *ſpraints*.

8. As to the attire of deer, or parts thereof, thoſe of a ſtag, if perfect, are the *bur*, the *pearls*, the little *knobs* on it, the *beam*, the *gutters*, the *antler*, the *ſur-antler*, *royal*, *ſur-royal*, and all at top the *croches*. Of the buck, the *bur*, *beam*, *brow-antler*, *black-antler*, *advancer*, *palm*, and *ſpellers*. If the croches grow in the form of a man's hand, it is called a *palmed-head*. Heads bearing not above three or four, and the croches placed aloft, all of one height, are called *crowned heads*. Heads having double croches are called *forked-heads*, becauſe the croches are planted on the top of the beam like forks.

9. They ſay, a *litter* of cubs, a *neſt* of rabbits, a ſquirrel's *dray*.

10. The terms uſed in reſpect of the dogs, &c. are as follow.—Of grey-hounds, two to make a *brace*; of hounds a *couple*. Of grey-hounds, three make a *leaſh*; of hounds a *couple* and *half*.—They ſay, *let ſlip* a grey-hound; and, *caſt off* a hound. The ſtring, wherein a grey-hound is led, is called a *leaſh*; and that of a hound, a *lyome*. The grey-hound has his *collar*, and the hound his *couples*. We ſay a *kennel* of hounds, and a *pack* of beagles.

In the kennels or packs they generally rank them under the heads of *enterers*, *drivers*, *flyers*, *tyers*, &c.

When the hounds, being caſt off, and finding the ſcent of ſome game, begin to open and cry, they are ſaid to *challenge*. When they are too buſy ere the ſcent be good, they are ſaid to *babble*. When too buſy, where the ſcent is good, to *bawl*. When they run it endwiſe orderly, holding in together merrily, and making it good, they are ſaid to be in *full cry*. When they run along without opening at all, it is called *running mute*.

When ſpaniels open in the ſtring, or a grey-hound in the courſe, they are ſaid to *lapſe*.

When beagles bark and cry at their prey, they are ſaid to *yearn*.

When the dogs hit the ſcent the contrary way, they are ſaid to *draw amiſs*.

When they take freſh ſcent, and quit the former chaſe for a new one, it is called *hunting change*.

When they *hunt* the game by the heel or track, they are ſaid to *hunt counter*.

When the chaſe goes off, and returns again, traverſing the ſame ground, it is called *hunting the foil*.

When the dogs run at a whole herd of deer, inſtead of a ſingle one, it is called *running riot*.

Dogs ſet in readineſs where the game is expected to come by, and caſt off after the other hounds are paſſed, are called a *relay*. If they be caſt off ere the other dogs be come up, it is called *vauntlay*.

When, finding where the chaſe has been, they make a proffer to enter, but return, it is called a *blemiſh*.

A leſſon on the horn to encourage the hounds, is named a *call*, or a *recheat*. That blown at the death of a deer, is called the *mort*. The part belonging to the dogs of any chaſe they have killed, is the *reward*. They ſay, *take off* a deer's ſkin; *ſtrip* or *raſe* a hare, fox, and all ſorts of vermin; which is done by beginning at the ſnout, and turning the ſkin over the ears down to the tail.

To

To HUNT. The purſuing of birds or four-footed beaſts, of which there are ſeveral ſorts, which differ according as the animals are which you hunt, and the places where they are; four-footed beaſts are hunted in the fields, woods, and thickets; they kill them with guns; and others ſhoot birds in the air, take them with nets, or birds of prey; make uſe of greyhounds for deers, does, roebucks, and even foxes, hares, and conies, *&c.*

Hunting indeed is a noble, manly recreation, not only commendable for princes and great men, but gentlemen, and others too, there being nothing that recreates the mind more, ſtrengthens the limbs, whets the ſtomach, and cheers up the ſpirits; ſo that it has merited the eſteem of all ages and nations, how barbarous ſoever they might have been.

Hunting is deſcribed under the heads of animals which are hunted, whether with dogs, taken with nets, or by birds of prey; which the reader is referred to.

All ſorts of weathers are not proper for hunting; high winds and rain are obſtacles to this diverſion.

In the ſpring time, you muſt take it in the night with nets; in the ſummer it is the diverſion of the morning; but in the winter, it ſhould not be followed but from nine in the morning till two in the afternoon. The general rule is, that you place yourſelf under the wind where you ſeek to wait for game; and the way to know it is, to take a piece of paper, and obſerve which way the wind blows it. *For the terms uſed by huntſmen, ſee the article* TERMS.

To HUNT CHANGE, is when the hounds or beagles take freſh ſcent, and follow another chaſe, till they ſtick and hit it again.

To HUNT COUNTER, ſignifies that the hounds hunt it by the heels.

HUNTING THE FOIL, is a term or phraſe uſed of the chaſes going off, and coming on again, traverſing the ſame ground to deceive the hounds or beagles.

HUNTING-HORSE. It ſhould be obſerved, that not every good and fleet horſe always is a good hunter: for he may have ſtrength and vigour for a long journey, and yet not be able to bear the ſhocks and ſtrainings of a chaſe; another may be ſwift enough to win a plate on a ſmooth turf, which yet will be crippled or heart-broken by a hare in *February*. The right hunter ought to have ſtrength without weight, courage without fire, ſpeed without labour, a free breath, a ſtrong walk, a nimble, light, but a large gallop, and a ſweet trot, to give change and eaſe to the more ſpeedy muſcles. The marks moſt likely to diſcover a horſe of theſe properties are, a vigorous, ſanguine, and healthy colour, a head and neck as light as poſſible, whether handſome or not, a quick moving eye and ear, clean wide jaws and noſtrils, large thin ſhoulders, and high withers, deep cheſt, and ſhort back, large ribs, and wide pin bones, tail high and ſtiff, gaſkins well ſpread, and buttocks lean and hard; above all, let his joints be ſtrong and firm, and his legs and paſterns ſhort; for I believe there was never yet a long limbering-legged horſe that was able to gallop down ſteep hills, and take bold leaps with a weight upon his back, without ſinking or foundering.

To order the hunting-horſe while he is at reſt, let him have all the quietneſs that may be; let him have much meat, much litter, much dreſſing, and water cloſe by him; let him ſleep as long as he pleaſes; keep him to dung rather ſoft than hard, and look that it be well coloured and bright, for darkneſs ſhews greaſe; redneſs, inward heat; and after his uſual ſcourings let him have exerciſe, and maſhes of ſweet malt, or bread, or clean beans; or beans and wheat mixed together, are his beſt food, and beans and oats the moſt ordinary.

But Sir ROBERT CHARNOCK's way of hunting in buck ſeaſon, was, never to take his horſe up into the ſtable during the ſeaſon, but he hunted him upon graſs, only allowing him as many oats as he would well eat; and this he approved of as a very good way, for if there be any molten greaſe within him, which violent hunting may raiſe, this going to graſs will purge it out: it is affirmed, the ſame gentleman has rid his horſe three days in a week during the ſeaſon, and never found any inconveniency, but rather good from it, ſo that care be taken to turn the horſe out very cool.

You may furniſh yourſelf with a horſe for hunting at ſome of our fairs, which ſhould have, as near as can be, the following ſhapes:

A head thin, large, and long; a chaul thin; and open ears, ſmall, and pricked; or, if they be ſomewhat long, provided they ſtand upright, like thoſe of a fox, it is uſually a ſign of mettle and toughneſs.

His forehead long and broad, not flat, and, as it is uſually termed, hare-faced, riſing in the midſt like that of a hare, the feather being placed above the top of his eye; the contrary being thought to betoken blindneſs.

His eyes full, large, and bright; his noſtrils wide, and red within, for an open noſtril is a ſign of good wind.

His mouth large, deep in the wikes, and hairy; his throppie, weaſand, or wind-pipe big, looſe, and ſtraight, when he is reined in with the bridle; for if, when he bridles, it bends like a bow, (which is called cock-throppled) it very much hinders the free paſſage of his wind.

His head muſt be ſo ſet on to his neck, that a ſpace may be felt between his neck and his chaul; for to be ball-necked is uncomely to the ſight, and alſo prejudicial to the horſe's wind.

His creſt ſhould be firm, thin, and well-riſen, his neck long and ſtraight, yet not looſe and pliant, which the northern men term withy-cragged.

His breaſt ſtrong and broad, his cheſt deep, his chine ſhort, his body large and cloſe ſhut up to the huckle bone.

His ribs round like a barrel, his belly being hid within them.

His fillets large, his buttocks rather oval than broad, being well let down to the gaſcoins; his cambrels upright, and not bending, which ſome call ſickle-hough-ed, though ſome look upon this to be a ſign of toughneſs and ſpeed.

His legs clean, flat, and ſtraight; his joints ſhort, well knit, and upright, eſpecially betwixt the paſterns and

and the hoof, having but little hair on his fetlocks; his hoofs black, ſtrong and hollow, and rather long and narrow, than big and flat.

Laſtly, his mane and tail ſhould be long, and thin rather than thick, which is counted by ſome a mark of dulneſs.

As to marks or colours, though they do not abſolutely give teſtimony of a horſe's goodneſs, yet they, as well as his ſhape, intimate in ſome part, his diſpoſition and qualities: the hair itſelf oftentimes receives the variation of its colour from the different temperature of the ſubject out of which it is produced.

And ſome do not ſcruple to affirm, that wherever you meet with a horſe that has no white about him, eſpecially in his forehead, though he be otherwiſe of the beſt reputed colours, as bay, black, or ſorrel, he is of a dogged and ſullen diſpoſition, eſpecially if he have a ſmall pink eye, and a narrow face, with a noſe bending like a hawk's bill.

The Age, &c. of a Hunter.

Having procured a horſe ſuitable to the former deſcriptions, or your own ſatisfaction at leaſt, and which is ſuppoſed to be already grounded in the fundamentals of this art, being taught ſuch obedience, as that he will readily anſwer to the horſeman's helps and corrections both of the bridle and hand, the voice, the calf of the leg, and the ſpurs; that he knows how to make his way forward, and hath gained a true temper of mouth, and a right placing of his head, and that he hath learned to ſtop, and turn readily; for unleſs he has been perfectly taught theſe things, he can never proceed effectually.

The horſe, being thus prepared, ſhould be five years old, and well wayed before you begin to hunt him; for although it is cuſtomary with ſome to put him to hunt at four years old, yet at that age his joints not being well knit, nor he attained to his beſt ſtrength and courage, he is unable to perform any work of ſpeed and toughneſs, and will be in great danger of ſtrains, and other maladies, and alſo a daunting of his ſpirit, and abating his natural courage.

Your horſe being full five, you may, if you pleaſe, put him to graſs, from the middle of *May* till *Bartholomew-tide*, for then the ſeaſon will be ſo hot, it will not be convenient to work him.

Bartholomew-tide being now come, and the pride and ſtrength of the graſs nipped by the ſevere froſts and cold dews, ſo that the nouriſhment of it turns to raw crudities, and the coldneſs of the night abates as much of his fleſh and luſt as he gets in a day, take him from graſs while his coat lies ſmooth and ſleek. *See* STABLE.

Having brought him home, let your groom ſet him up that night in ſome ſecure and ſpacious houſe, where he may evacuate his body, and ſo be brought to warmer keeping by degrees, and the next day ſtable him.

It is indeed held as a general rule among the generality of grooms, not to clothe or dreſs their horſes till two or three days after they have ſtabled them (though there is little reaſon for it but cuſtom;) yet this cuſtom conducing little to either the advantage or prejudice of the horſe, I ſhall leave every one to their own fancies.

But as to the cuſtom of giving the horſe wheat-ſtraw, to take up his belly (which is alſo generally uſed by grooms at the firſt taking up and houſing a horſe) ſome perſons very much diſapprove of, for they ſay, that the nature of a horſe being hot and dry, if he be fed with ſtraw, which is ſo likewiſe, it would ſtraighten his guts, and cauſe an inflammation of his liver, and by that means diſtemper his blood; and beſides, it would make his body ſo coſtive, that it would cauſe a retention of nature, and make him dung with great pain and difficulty; whereas full feeding would expel the excrements, according to the true intention and inclination of nature.

Therefore let moderate airing, warm cloathing, good old hay, and old corn, ſupply the place of wheat-ſtraw. *See* SHOEING.

The firſt Fortnight's Diet for a Hunting Horſe; or, the Ordering of a Hunter for the Firſt Fortnight.

Your horſe being ſuppoſed to evacuate all his graſs, and his ſhoes ſo well ſettled to his feet, that he is fit to be ridden abroad without danger: I ſhall now, in a more particular manner, direct an inexperienced groom how he ought to proceed to order his horſe according to art.

Firſt, he ought to viſit his horſe early in the morning, to wit, by five o'clock in ſummer, and ſix in winter; and having put up his litter under his ſtall, and made clean his ſtable, to feel his ribs, his chaul, and his flank, they being the principal ſigns by which he muſt learn to judge of the good or ill ſtate of a horſe's body.

He ought to lay his hands on his ſhort ribs near the flank, and if his fat feels to be exceeding ſoft and tender, and to yield as it were under his hand, then he may be confident it is unſound, and that the leaſt violent labour or travel will diſſolve it; which being diſſolved before it be hardened by good diet, if it be not then removed by ſcowering, the fat or greaſe belonging to the outward parts of the body will fall down into his heels, and ſo cauſe goutineſs and ſwelling.

After, by feeling on his ribs, he has found his fat ſoft and unſound, then let him feel his chaul; and if he finds any fleſhy ſubſtance, or great round kernels or knots, he may be aſſured that as his outward fat has been unſound, ſo inwardly he is full of glut, and purſive, by means of groſs humours cleaving to the hollow places of his lungs, &c.

This fat is to be enſeamed and hardened by moderate exerciſe, warm cloathing, and gentle phyſic, to cleanſe away his inward glut.

The ſame obſervations muſt be taken from the flank, which will always be found to correſpond with his ribs and chaul, for till it is drawn it will feel thick to your gripe, but when he is enſeamed you will perceive nothing but two thick ſkins: and by theſe three obſervations of the ribs, flank, and chaps, you may at any time

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pafs an indifferent judgment of the horfe's good or bad condition.

Having made thefe remarks on your horfe's ftate and condition of body, then fift a handful or two (but not more) of good old oats, and give them to him to preferve his ftomach from cold humours which might oppref it by drinking fafting, and likewife to make him drink the better.

When he hath eaten them, pull off his collar, and rub his head, face, ears, and nape of the neck, with a clean rubbing-cloth made of hemp, for it is fovereign for the head, and diffolves all grofs and filthy humours.

Then take a fnaffle, and wafh it in clean water, and put it on his head, drawing the rein through the head-ftall to prevent his flipping it over his head; and fo tie him up to the rack, and drefs him thus:

Firft, take a curry-comb fuitable to your horfe's fkin in your right-hand; that is, if the coat of your horfe be fhort and fmooth, then muft the curry-comb be blunt; but if it be long and rough, then the teeth muft be long and fharp; ftanding with your face oppofite to the horfe's, hold the left cheek of the head-ftall in your left-hand, and curry him with a good hand from the root of his ears, all along his neck to his fhoulders; then go over all his body with a more moderate hand; then curry his buttocks down to the hinder cambrel with a hard hand again; then change your hand, and laying your right arm over his back, join your right fide to his left, and fo curry him gently from the top of his withers to the lower part of his fhoulder, every now and then fetching your ftroke over the left fide of his breaft, and fo curry him down to the knee, but no farther.

Then curry him all under his belly, near his fore-bowels, and in a word, all over, very well, his legs under the knees and cambrels only excepted, and as you drefs the left fide, fo muft you the right alfo.

In doing this, take notice whether your horfe keeps a riggling up and down, biting the rack-ftaffs, and now and then offering to fnap at you, or lifting up his leg to ftrike at you, when you are currying him: if he does, it is an apparent fign that the roughnefs of the comb difpleafes him, and therefore the teeth of it are to be filed more blunt; but if you perceive he plays thefe or fuch like tricks through wantonnefs, and the pleafure he takes in the friction, then you fhould every now and then correct him with your whip gently for his waggifhnefs.

This currying is only to raife the duft, therefore, after the horfe has been thus curried, take either a horfe-tail nailed to an handle, or a clean dufting-cloth of cotton, and with it ftrike off the loofe duft that the curry-comb has raifed.

Then drefs him all over with the *French* brufh, both head, body, and legs, to the very fetlocks, obferving always to cleanfe the brufh from the filth it gathers from the bottom of the hair, by rubbing it on the curry-comb; then duft the horfe again the fecond time.

Then having wetted your hand in water, rub his body all over, and, as near as you can, leave no loofe hairs behind, and with your hands wet, pick, and cleanfe his eyes, ears, and noftrils, fheath, cods and tuel, and fo rub him till he is as dry as at firft.

Then take an hair-patch, and rub his body all over, but efpecially his fore-bowels under his belly, his flank, and between his hinder thighs; and in the laft place, wipe him over with a fine white linen rubber.

When you have thus dreffed him, take a large faddle cloth (made on purpofe) that may reach down to the fpurring-place, and lap it about his body; then clap on his faddle, and throw a cloth over him, that he may not catch cold.

Then twift two ropes of ftraw very hard together, and with them rub and chafe his legs from the knees and cambrels downwards to the ground, picking his fetlock joints, with your hands, from duft, filth, and fcabs: then take another hair-patch, kept on purpofe for his legs (for you muft have two) and with it rub and drefs his legs alfo.

And while you are dreffing your horfe, let him not ftand naked, fo that his body be expofed to the penetration of the air; but when he is ftripped, do your bufinefs roundly, without any intermiffion, till you have faddled him and thrown his cloth over him.

When you have done this, pick his feet clean with an iron picker, comb down his mane and tail with a wet mane-comb, then fpirt fome beer in his mouth, and fo draw him out of the ftable.

Then mount him, rake or walk him either to fome running river or frefh fpring, a mile or two diftant from the ftable, and there let him drink about half his draught at firft, to prevent raw crudities arifing in his ftomach.

After he has drank, bring him calmly out of the water, and ride him gently for a while; for nothing is more unbecoming for a horfeman than to put a horfe upon a fwift gallop as foon as he comes out of the water, for thefe three reafons:

1. He does not only hazard the breaking of his wind, but affuredly hazards the incording or burfting of him.

2. It begets in him an ill habit of running away as foon as he has done drinking.

3. The forefight he has of fuch violent exercife, makes him oftentimes refufe to quench his thirft, therefore walk him a little way, put him into a gentle gallop for five or fix fcore paces, and give him wind; after he has been raked a pretty while, fhew him the water again, let him drink as much as he will, and then gallop him again: repeat this till he will drink no more; but be fure to obferve always, that you gallop him not fo much as to chafe or fweat him.

Here take notice, that in his galloping after wafer (after the firft week's enfeaming) if fometimes you give a watering courfe fharply of twelve, or twenty fcore paces (according as you find your horfe) it will quench his fpirit, and caufe him to gallop more pleafantly, and teach him to manage his limbs more nimbly, and to ftretch forth his body largely.

When your horfe has done drinking, then take him

to the top of an hill (if there be one near the watering-place) for there, in a morning, the air is purest; or else to some such place, where he may gain the most advantage both by sun and air, and there air him a foot-pace for an hour, or as long as you in your judgment shall think fit for the state of his body, and then ride him home.

During the time of your horse's airing, you may easily perceive several tokens of your horse's satisfaction, and the pleasure that he takes in this exercise.

For he will gape, yawn, and as it were shrug his body.

If he offers to stand still to dung or stale, which his airing will provoke, be sure give him leave; as also to stare about, neigh, or listen after any noise.

These airings are advantageous to the horse on several accounts.

1. It purifies the blood (if the air be clear and pure); it purges the body of many gross and suffocating humours, and so hardens and enseams the horse's fat, that it is not near so liable to be dissolved by ordinary exercise.

2. It teaches him how to let his wind rake, and equally keep time with the other actions and motions of his body.

3. It is of great advantage, both to hunters and gallopers, which are apt to lose their stomachs through excess or want of exercise, for the sharpness of the air will drive the horse's natural heat from the outward parts to the inward, which heat by furthering concoction creates appetite, and provokes the stomach.

4. It increases lust and courage in the horse, provided he be not aired too early.

When you are returned from airing, and are dismounted, lead the horse on the straw, which should always lie before the stable-door, and there by whistling and stirring up the litter under his belly, you will provoke him to stale, which he will be brought to do with a little practice, and it will be advantageous to the health of the horse, and a means of keeping the stable the cleaner: lead him into his stall (it having first been well littered); tie up his head to the empty rack, take off the saddle, rub his body and legs all over with the flesh-brush, then with the hair-patch, and last of all with the woollen-cloth.

Then clothe him with a linen-cloth next to his body, and over that a canvas-cloth, and both made just fit to cover his breast, and to come pretty low down to his legs, which is the *Turkish* way of clothing, who (as the Duke of NEWCASTLE says) are the most curious people in the world in keeping their horses.

Put over the before-mentioned a body-cloth of six or eight straps, which is better than a surcingle and a pad stuft with wisps.

Because this keeps his belly in shape, and is not so subject to hurt him.

Now these cloths will be sufficient for him at his first stabling, because being inured to the cold, he will not be so apt to take cold, the weather being indifferently warm, but when sharp weather comes on, and you find his hair rise about those parts that are unclothed, as neck, gascoins, &c. then add another cloth, which ought to be of woollen; and for any horse bred under our climate, and kept only for ordinary hunting, this clothing will be sufficient.

Having already given directions as to the clothing the horse, I shall only add this one general rule; that a rough coat is a token of want of cloaths, and a smooth coat of cloathing sufficient; therefore if notwithstanding what cloaths you have given him, his coat still stares, you must add more cloaths till it lie.

But when he has been in keeping some time, if you perceive him apt to sweat in the night, it is a sign he is over-fed, and wants exercise; but if he sweats at his first coming from grass, then there is reason to add rather than diminish the cloaths before directed for him at his first housing; for it proceeds from the foul humours that oppress nature, and when they are evacuated by exercise, nature will cease working, and he will continue in a temperate state of body all the year after.

When you have cloathed him up, pick his feet clean with an iron picker, and wash his hoofs clean with a sponge dipped in clean water, and dry them with straw or a linen cloth, then leave him on his snaffle for an hour or more, which will assist his appetite.

Visit him again, dust a handful of hay, and let the horse teaze it out of your hand, till he hath eaten it: then pull off his bridle, and rub his head and neck clean with your hempen-cloth; pull his ears, and stop his nostrils, to cause him to snort, which will bring away the moist humours which oppress his brain, and then put on his collar, and give him a quartern of oats clean dressed in a sieve, having first cleaned his locker or manger with a wisp of straw and a cloth.

While he is eating his corn, sweep out your stable, and see that all things are neat about him; then turn up his cloaths and rub his fillets, buttocks, and gascoins, over with the hair-patch, and after with a woollen cloth; then spread a clean flannel fillet cloth over his fillets and buttocks (which will make his coat lie smooth) and turn down his housing cloths upon it; then anoint his hoofs round from the coronet to the toe with this ointment:

Take four ounces of Venice-turpentine, three ounces of bees-wax, two ounces of the best rosin, one pound of dog's-grease, and half a pint of train oil; melt all these ingredients together, except the turpentine; then take them off the fire, and put in the turpentine, stirring it till it be well incorporated; then pour it into an earthen gallipot, and keep it for use, but do not cover it till it is cold.

After this, pick his feet with your picker, and stop them with cow-dung. If by this time your horse has eaten his oats with a good stomach, sift him another quartern, and so feed him little and little, while he eats with an appetite; but if you find he fumbles with his corn, give him no more for that time, but always giving him his full feeding, for that will keep his body in better

better state and temper, and increase his strength and vigour.

Whereas, on the contrary, to keep your horse always sharp set, is the ready way to procure a surfeit, if at any time he can come at his fill of provender.

But though you should perceive that he gathers flesh too fast upon such home feeding, yet be sure not to stint him for it, but only increase his labour, and that will assist both his strength and wind.

Having done all the things before directed, dust a large quantity of hay, and throw it down to him on his litter, after you have taken it up under him; and then shutting up the windows and stable-door, leave him till one o'clock in the afternoon; then visit him again, and rub over his head, neck, fillets, buttocks, and legs as before, with the hair-patch and woollen cloth, and leave him to the time of the evening-watering, which should be about four o'clock in the summer, and three in the winter: when having put back his foul litter, swept away that and his dung, dress, and saddle him, as before, mount him, and take him to the water, and when he has drank, air him till you think it time to go home, where you are to order in all points, as to rubbing, feeding, stopping his feet, &c. as you did in the morning; and having fed him about six o'clock, do not fail to feed him again at nine, litter him well, give him hay enough to serve him all night, and leave him till the next morning.

After the directions for this one day, so must you order him for a fortnight, and by that time his flesh will be so hardened, and his wind so improved; his mouth will be so quickened, and his gallop brought to so good a stroke, that he will be fit to be put to moderate hunting.

During this fortnight's keeping, you are to make several observations, as to the nature and disposition of your horse, the temper of his body, the course of his digestion, &c. and to order him accordingly.

1. Whether he be of a churlish disposition; if so, you must reclaim him by severity.

If of a gentle, familiar, and loving temper, you must engage, and win him by kindness.

2. You must observe, whether he be a foul feeder, or of a nice stomach; if he be quick at his meat, and retain a good stomach, then four times a full feeding in a night and a day are sufficient; but if he be a slender feeder, and slow at his meat, you must give him but a little at a time, and often, as about every two hours; for fresh meat will draw on his appetite; and you must always leave a little meat in his locker, for him to eat at leisure betwixt his feeding-times; if at any time you find any left, sweep it away and give him fresh, and expose that to the sun and air, which will reduce it again to it's first sweetness.

His stomach may also be sharpened by change of meat, or by giving one meal of clean oats, and at another oats and split beans, and when you have brought him to eat bread, you may give him another meal of bread; always observing to give him oftenest that which you find he likes best; or you may give him both corn and bread at the same time, provided you give him that last which he eats best, and is of the best digestion.

It has been observed of some horses, that they are of so hot a constitution, that they cannot eat without drinking at every bit; and those horses usually carry no belly. You must let a pail of water stand continually before such horses, or at least give them water at noon, besides what they have abroad at their ordinary times.

In the next place, you are to observe the nature of his digestion, whether he retains his food long, which is a sign of bad digestion; or whether he dungs frequently, which if he does, and his dung be loose and bright, it is a sign of a good habit of body; but if it be seldom, and hard, it is a sign of a dry constitution; in order to remedy which, give him once a day a handful or two of oats, well washed in good strong ale, and this will loosen his body and keep it moist; and it will also be good for his wind.

The second Fortnight's Diet for a Hunting-Horse.

The horse having been ordered for the first fortnight according to the foregoing rules, will be in a pretty good state of body, for the gross humours in him will begin to be hardened, which you may perceive by feeling his chaul, his short ribs and flank; for the kernels under his chaps will not feel so gross as they did at first, nor will his flesh on his short ribs feel so soft and loose, nor the thin part of his flank so thick as at his first housing, so that you may now without hazard venture to hunt him moderately.

The time being now come that he may be hunted, he is to be ordered on his days of rest, in all points, as to his dressing, hours of feeding, watering, &c. as in the first fortnight before directed; but only since his labour is now encreased, you must endeavour to encrease his strength and courage likewise; and this you may effect by adding to his oats a third part of clean old beans, spelted on a mill, and allowing him besides the following bread:

Take two pecks of clean old beans, and one peck of wheat, and let them be ground together, and sift the meal through a meal sieve of an indifferent fineness, and knead it with warm water and good store of yeast; then let it lie an hour, or more, to swell, which will make the bread the lighter, and have the easier and quicker digestion; and after it has been well kneaded, make it up into loaves of a peck a-piece, which will prevent there being too much crust, and likewise its drying too soon; let them be well baked, and stand a good while in the oven to soak; when they are drawn, turn the bottom upwards and let them stand to cool.

When the bread is a day old, chip away the crust, and you may give the horse some, giving him sometimes bread, sometimes oats and split beans, according as you find his stomach: and this feeding will bring him into as good condition as you need to desire for ordinary hunting.

The first fortnight being expired, and the bread prepared, you ought then to pitch upon a day for his first going abroad after the dogs, and the day before you hunt he must always be ordered after this manner:

In the morning proceed in your usual method as before, only observe that day to give him no beans, because

cause they are hard of digestion, but give him most of bread, if you can draw him on to eat it, because it is more nourishing than oats; and after, in the evening, which ought to be somewhat earlier than at other times, give him only a little hay out of your hand, and no more till the next day that he returns from hunting; and to prevent his eating his litter, or any thing else but what you give him, instead of a muzzle put on a cavesson, joined to the headstall of a bridle, lined with leather, for fear of hurting him, and tying it so straight as to hinder his eating; and this will prevent sickness in your horse, which some horses are incident to when their muzzle is put on, notwithstanding the invention of the lettice window, so much used; but by taking this method, the horse's nostrils are at full liberty, and he will not grow sick.

But as to his corn, give him his meals both after his watering and at nine o'clock, and at that time be sure to litter him well, that he may take his rest the better that night, and leave him till morning.

The next morning visit him early, at about four o'clock, and put a quarter of a peck of clean dressed oats into his locker, pouring into it a quart of good strong ale, mixing the oats and ale well together; then put back his dung and foul litter, and clean the stable: but if he will not eat washed oats, give him dry, but be sure not to put any beans to them.

When he has done eating, bridle him, and tie him up to the ring and dress him: having dressed him, saddle him, throwing his cloth over him, and let him stand till the hounds are ready to go out.

Take care not to draw the saddle-girths too straight till you are ready to mount, lest that should cause him to grow sick.

Though old horses are generally so crafty, that when a groom goes to girt them up hard, they will extend their bodies so much by holding their wind, (on purpose to gain ease after they are girt) that it will seem difficult to girt them, but when they let go their wind their bodies fall again.

When the hounds are unkennelled, (which should not be before sun-rising) go into the field along with them, and rake your horse up and down gently till a hare is started; always remembering to let him smell to the dung of other horses, if there be any, which will provoke him to empty himself; and suffer him to stand still when he does so; and if there be any dead fog, rushes, or the like, ride upon them, and whistle to him, to provoke him to stale and empty his bladder.

The hare being started, follow the hounds as the other hunters do; but remembering it to be the first time of his hunting, he is not so well acquainted with different sorts of grounds, as to know how to gallop smoothly and with ease on them, and for that reason you ought not yet to put him to above half his speed, that he may learn to carry a stay'd body, and to manage his legs both upon fallows and green swarth.

Neither should you gallop him often, or any long time together, for fear of discouraging him, and causing a dislike of his exercise in him; and take care to cross fields to the best advantage; you shall make in to the hounds at every default, and still keep your horse (as much as these directions will allow you) within the cry of the dogs, that he may be used to their cry; and by so doing, in a very short time he will take such delight and pleasure in their music, that he will be eager to follow them.

And if it happens that the chase is led over any carpet-ground, or sandy highway, on which your horse may lay out his body smoothly, there you may gallop him for a quarter or half a mile, to teach him to lay out his body, to gather up his legs, to lengthen and shorten his stroke, and according to the different earths he gallops on, as if on green swarth, meadow, moor, heath, &c. then to stoop and run more on the shoulders; if amongst mole-hills, or over high ridges and furrows, and then to gallop more roundly, or in less compass, or according to the vulgar phrase, *two up and two down*, that thereby he may strike his furrow clear, and avoid setting his fore-feet in the bottom of it, and by that means fall over; but, by the way, galloping, though he should happen to set his feet in a furrow, yet carrying his body so round, and resting on the hand in his gallop, would prevent his falling; and to this perfection, nothing but use, and such moderate exercise, can bring him.

According to these directions you may hunt till about three o'clock in the afternoon, at which time ride him home in a foot-pace, as you came out in the morning; and be sure that you let him walk out of the field; and as you are going home, consider whether he has sweat a little (for you must not let him sweat much the first time) but if not, then gallop him gently on some skelping earth, till he sweats at the roots of his ears, a little on his neck, and in his flank; but it must be done of his own voluntary motion, without the compulsion of whip or spur; then when he is cool as aforesaid, have him home and stable him, and by no means walk him in hand to cool him, for fear of causing an obstruction of the natural course of the humours and by that means cause an inflammation in his legs, which is the original cause of the scratches.

His stall being well littered against he comes home, set him up, tying his head to the ring with the bridle, and then rub him well with dry straw all over his head, neck, fore-bowels, belly, flank, buttocks, and legs, and after that rub his body over with a dry cloth, till he has not a wet hair left about him; after you have done, take off his saddle, and rub the place where the saddle was, dry in like manner, and cloath him immediately with his ordinary cloaths, lest he take cold: and if you suppose him very hot, throw a spare cloth over him, that he may not cool too fast, which you may abate when you please, and so let him stand on his snaffle two hours or better, now and then stirring him in his stall with your whip, to prevent him from growing stiff in the legs and joints.

When that time is expired, and you think he is thorough cool, draw his bridle, rub his head, pick his feet from dirt or gravel, put on his collar, and give him a quart or three pints of sifted oats, mixt with a handful of clean dressed hemp-seed; but give him not more

than the quantity prescribed, for fear of taking away his stomach, which will be very much weakened through the heat of his body and want of water.

Then take off the spare cloth (if it has not been done before) for fear of keeping him hot too long, and when he has eaten his corn, throw a good quantity of hay, clean dusted, on his litter, and let him rest two or three hours or thereabouts.

Having prepared him a good mash made of half a peck of malt, well ground, and boiling hot water, so much as the malt will sweeten and the horse will drink, stir them well together, and cover it over with a cloth, till the water has extracted the strength of the malt, which will be almost as sweet as honey, and feel ropy like birdlime; being but little more than blood warm, give it the horse, but not before, lest the steam go up his nostrils and offend him, and when he has drank up the water, let him, if he please, eat the malt too.

But if he refuses to drink it, you must not give him any other water that night, but place this drink in some part of his stall, so that he may not throw it down, and let it stand by him all night, that he may drink it when he pleases.

This mash, or as it is called, horse caudle, will comfort his stomach, and keep his body in a due temperate heat after his day's hunting; it will bring away all manner of grease and gross humours, which have been dissolved by the day's labour; and the fume of the malt-grains, after he has drank the water, will disperse the watery humours, which might otherwise annoy his head, and is allowed by all skilled in horses to be very advantageous on that account.

After he has eaten his mash, strip him of his cloaths, and run him over with a curry-comb, *French* brush, hair-patch, and woollen cloth, and cloath him up again; and cleanse his legs as well as his body; of all dirt and filth which may annoy them, and then remove him into another stall (that you may not wet his litter) and bathe his legs all over from the knees, with warm beef broth, or (which is better) with a quart of warm urine, in which four ounces of salt-petre has been dissolved; then rub his legs dry, set him again into his stall, and give him a good home feeding of oats, or bread, which he likes best, or both, and having shook a good quantity of litter under him, that he may rest the better, and thrown him hay enough for all night, shut the stable door close, and leave him to his rest till the next morning.

About six or seven o'clock the next morning go to him again, but don't disturb him, for the morning's rest is as refreshing to a horse as a man; but when he rises of his own accord, go to him, put back his dung from his litter, and observe what colour it is of, whether it be greasy, and shine outwardly, and also break it with your feet, to see if it be so inwardly, for if it be greasy and foul (which you may know by its shining outwardly, and by the spots like soap that will appear within) or if it appear of a dark brown colour, and harder than it was, it is a token that the hunting of the day before has done him good, by dissolving part of the inward glut which was within him; and therefore the next time you hunt you should increase his labour but a little.

But if you perceive no such symptoms, but that his dung appears bright, but rather soft than hard, without grease, and in a word, that it holds the same pale yellow colour, that it did before he hunted, then it is a sign that a day's hunting made no dissolution, but that his body remains in the same state still, and therefore the next day's hunting, you may almost double his labour.

Having made these remarks on his dung, then you may proceed to order him as on his days of rest; that is to say, you shall give him a handful or two of oats before water, then dress, water, air, feed, &c. as in the first fortnight.

As to his feeding, you must not forget to change his food, as has been before directed; by giving him one while bread, another oats, and a third time oats and beans, which you find he likes best; always remembering, that variety will sharpen his appetite; and bread being his chief food, it being more nourishing and strong than the others, feed him the oftener with it.

And, as has been directed in the first fortnight, observe his digestion, whether it be quick or slow; so likewise must you do when he begins to eat bread.

If you find him quick, and that he retains his bread but a little while, then only chip his bread lightly; but if it be slow, and he retains it long, then cut away all the crust and give it to some other horse, and feed the hunting horse only with the crumb, for that being light of digestion, is soon converted into chyle and excrements, but the crust being not so soon digestible, requires, by reason of its hardness, longer time before it is concocted.

The next day after your horse has rested, you may hunt him again as you did the first day, observing from the remarks you have made, to hunt him more or less according as you find his temper and constitution; and when you come home, put in practice the rules just now given.

And thus you may hunt him three times a week for a fortnight together, but don't fail to give him his full feeding, and no other scowerings but meshes and hemp-seed, which is equal in its virtue with the former, and only carries off superfluous humours in the dung.

The third Fortnight's Diet, &c. for a Hunting-Horse.

By this time the horse will be drawn so clean, his flesh will be so enseamed, and his wind so improved, that he will be able to ride a chase of three or four miles without blowing or sweating; and you may find by his chaul and flank, as well as his ribs, that he is in an indifferent good state of body, and therefore in this next fortnight you must increase his labour, and by that means you will be able to make a judgment what he will be able to do, and whether or no he will ever be fit for running for plates, or a match.

When your horse is set over night, and fed early in the

the morning, as has been directed for the second fortnight, then go into the field with him, and when he is empty (as he will be by that time you have started your game) follow the dogs at a good round rate, as at half speed, and so continue till you have either killed or lost your first hare.

This will so rack your horse, and he will have so emptied himself, that he will be in a fit condition to be rid the next chase briskly, which as soon as it is begun, you may follow the dogs at three quarters speed, and as near as is fit for a good horseman and skilful huntsman; but be sure to take care not to strain him.

During this day's riding, you ought to observe nicely your horse's sweat under his saddle and fore-bowels, and if it appears white, like froth or soap-suds, it is a sign of inward glut and foulness, and that your day's exercise was enough for him, therefore ride him home, and order him as before directed.

But if it has happened that your exercise has been so easy as not to sweat your horse thoroughly, then you ought to make a train scent of four miles in length, or thereabouts, and laying on your fleetest dogs, ride it briskly, and afterwards cool him in the field, and ride him home and order him as has been before directed.

A train scent, is the trailing of a dead cat or fox (and in case of necessity a red herring) three or four miles, according as the rider shall please, and then laying the dogs on the scent.

It will be proper to keep two or three couple of the fleetest hounds that can possibly be procured, for this purpose.

It is true, indeed, some skilful sportsmen do make use of their harriers in this case, for their diversion, but it will not be convenient to use them to it often, for it will be apt to induce them to lie off the line, and fling so wide, that they will not be worth any thing.

When you take off your horse's bridle, give him a good quantity of rye-bread, instead of hemp-seed and oats, and for that purpose bake a peck loaf; for this being cold and moist, will be of use to cool his body after his labour, and prevent costiveness, to which you will find him addicted; then give him hay, and afterwards a mash, and order him in all things as before directed.

The next morning, if you perceive by his dung that his body is distempered, and that he is hard bound, then take some crumbs of your rye-bread, and work it with as much sweet fresh butter as will make it into a paste, and make it up into balls about the bigness of a large walnut, of which give him five or six in a morning fasting.

After this put the saddle on upon the cloth, get up and gallop him gently upon some grass-plat or close that is near at hand, till he begin to sweat under his ears, and then carry him into the stable again, rub him well, and throw a spare cloth over him, and a good quantity of fresh litter under him, and let him stand two hours on the bridle; give him a quantity of rye-bread, and some hay to chew upon, and give him a warm mash, feed him with bread and corn as much as he will eat, and also as much hay as he will eat.

The next day water him abroad, and order him as is before directed for days of rest.

The next day you may hunt him again, but not so hard as you did the time before, till the afternoon; but then ride him after the dogs briskly, and if that does not make him sweat thoroughly, make another train scent, and follow the dogs three quarters speed, that he may sweat heartily: then cool him a little, and ride him home, and as soon as he is come into the stable, give him two or three balls as big as walnuts, of the following excellent scouring:

Take of butter, eight ounces; lenitive electuary, four ounces; gromwel, broom, and parsley-seeds, of each two ounces; anniseeds, liquorice, and cream of tartar, of each one ounce; of jalap, two ounces; reduce the seeds to a powder, then stir them into a paste with the electuary and butter, knead it well together, put it into a pot, and keep it close stopped for use.

As soon as the horse has taken these balls rub him dry, dress him, cloath him warm, let him stand two or three hours upon the snaffle; afterwards give him two or three handfuls of rye-bread, and order him as you have been directed before, as to hay, provender, mash, &c. and so leave him till the next morning.

In the morning take notice of his dung, whether it still retains the true colour, or be dark, or black, or red and high coloured: in the next place, whether it be loose and thin, or hard and dry.

If it be of a pale yellow, which is the right colour, it is a sign of health, strength, and cleanness; if it be dark, or black, then it is a sign there is grease and other ill humours stirred up, which are not yet evacuated: if it be red and high coloured, then it is a sign that his blood is feverish and distempered, by means of inward heat: if it be loose and thin, it is a sign of weakness; but if hard and dry, it shews the horse to be hot inwardly, or else that he is a foul feeder: but if his dung be in a medium between hard and soft, and smell strong, it is a sign of health and vigour.

When these observation have been made on his dung, then feed, dress, water, &c. as on his usual days of rest, always letting him have variety, and his fill of corn and bread.

The next day have him abroad into the fields again, but do not by any means put him to any labour more than raking him from hill to hill after the dogs, keeping him without sound of their cry; for the intent of this day's exercise is only to keep him in breath, and procure him an appetite.

In riding, let him stand still to dung, and look back on it, that you may be able to judge of his state thereby.

When the day is near spent, ride him home without the least sweat, and order him as at other times, except that you are not to give him any scourings, or rye-bread.

You may, if you please, this day, water your horse both at going into the field and coming out, galloping him after it, to warm the water in his belly.

The

The next day being to be a day of rest, order him in the same manner in every respect as on other days of rest; and as you have spent this week, you must spend the next, without any alteration; and by this time, and this management, you may depend upon it that your horse has been drawn clean enough for ordinary hunting.

So that afterwards, only taking care to hunt your horse with moderation twice or three times a week, at your pleasure, and according to the constitution of your horse's body, you need not question but to have him in as good state and strength as you can desire, without danger of his wind, eye-sight, feet, or body.

Having thus drawn your horse clean, according to art, you will perceive those signs before-mentioned very plainly, for his flesh on his short ribs and buttocks will be as hard as brawn, his flanks will be thin, and nothing to be felt but a double skin, and chaps so clean from fat, glot, or kernels, that you may hide your fists in them; and above all, his exercise will give plain demonstration of the efficacy of this method of ordering him, for he will run three or four miles, three quarters speed, without sweating, or scarce so much as blowing.

When the horse has been brought to this state, you must use no more scourings after hunting (because nature has nothing to work on) but rye-bread and mash, except the horse be now and then troubled with some little pose in his head; then bruise a little mustard-seed in a fine linen rag, and steep it in a quart of strong ale for three or four hours, and untying the rag, mix the mustard seed and the ale with a quarter of a peck of oats, and give it to him.

In the last place, the horse having been thus drawn clean, you ought to take care not to let him grow foul again, through want of either airing or hunting, or any other negligence, lest by that means you make yourself a double trouble.

Of Breeding Hunting and Race-Horses.

Procure either an *Arabian*, a *Spanish*, a *Turkish* horse, or a *Barb*, for a stallion, which is well shaped, and of a good colour, to beautify your race; and some advise that he be well marked also, though others are of opinion, that marks are not so significant as Mr. Blundevil and Frederigo Grissone would have us believe.

Those who have travelled into those parts, report, that the right *Arabian* horses are valued at an almost incredible rate; at five hundred, and others say, even two or three thousand pounds a horse; that the *Arabs* are as careful of keeping the genealogies of their horses as Princes are in keeping their pedigrees; that they keep them with medals; and that each son's portion is usually two suits of arms, two scymetars, and one of these horses. The *Arabs* boast, that they will ride eighty miles a day without drawing bitt; which is no more than has been performed by several of our *English* horses.

But much more was performed by a highwayman's horse, who having committed a robbery, rode on the same day from *London* to *York*, being a hundred and fifty miles.

Notwithstanding their great value, and the difficulty in bringing them from *Scanderoon* to *England* by sea, yet by the care and charge of some breeders in the north, the *Arabian* horse is no stranger to these parts.

A *Spanish* horse (in the Duke of *Newcastle*'s opinion) is the noblest horse in the world, and the most beautiful that can be; no horse is so beautifully shaped all over from head to croup, and he is absolutely the best stallion in the world, either for breed, for the manage, the war, the pad, hunting, or running horses; but as they are excellent, so is their price extravagant, three or four hundred pistoles being a common price for a *Spanish* horse.

Several have been sold for seven hundred, eight hundred, and a thousand pistoles a piece.

The best *Spanish* horses are bred in *Andalusia*, and particularly at *Cordova*, where the King has many studs of mares, and so have several of the *Spanish* nobility and gentry.

Besides the great price they cost at first, the charges of the journey from *Spain* to *England* is very considerable; for they must travel from *Andalusia* to *Bilboa* or St. *Sebastian*, the nearest ports to *England*, which is at least four hundred miles; and in that hot country you cannot with safety travel your horse above twenty miles a day; besides, you must be at the expence of a groom and farrier, and the casualty of sickness, lameness, and death: so that if he should happen to prove an extraordinary good horse, by that time you have got him home, he will also be an extraordinary dear one.

A *Turkish* horse is but little inferior to the *Spanish* in beauty, but somewhat odd shaped, his head being somewhat like that of a camel; he has excellent eyes, a thin neck, excellently risen, and somewhat large of body; his croup is like that of a mule, his legs not so underlimbed as that of a *Barb*, but very sinewy, good pasterns, and good hoofs: they never amble, but trot very well, and are at present accounted better stallions for gallopers than *Barbs*.

Some merchants tell us, that there cannot be a more noble and diverting sight, to a lover of horses, than to walk into the pastures near *Constantinople*, about foiling-time, where he may see many hundred fine horses tethered, and every horse has his attendant or keeper, with his little tent placed near him to lie in, that he may look to him, and take care to shift him to fresh grass.

The price of a *Turkish* horse is commonly one hundred, or one hundred and fifty pounds; and when bought, it is difficult to get a pass; the Grand Signior being so very strict, that he seldom (but upon very extraordinary occasions) permits any of his horses to be exported out of his dominions.

But if you should attain a liberty so to do, and travel by land, unless you have a *Turk* or two for a convoy, you will be sure to have them seized on by the way.

And besides, you will find the same difficulties of a long

long journey, through *Germany*, great charges attending it, by having a groom and farrier, who must be careful that they entrust no person whatsoever with the care of him but themselves, especially in shoeing him, for 'tis the common practice beyond sea, as well as here, wherever they see a fine horse, to hire a farrier to prick him, that they may buy him for a stallion.

But some persons chuse to buy horses at *Smyrna* in *Anatolia*, and from thence, and from *Constantinople*, to transport them to *England* by sea, which, if the wind serve right, arrive in *England* in a month; though generally the merchants voyages are not made in much less than two or three months.

The *Barb* is little inferior to any of the former in beauty; but our modern breeders account him too slender and lady-like to breed from, and therefore in the north of *England* they prefer the *Spanish* and *Turkish* horse before him.

He is so lazy and negligent in his walk, that he will stumble on carpet ground.

His trot is like that of a cow, his gallop low, and with much ease to himself; but he is for the most part sinewy and nervous, excellently winded, and good for a course if he be not over-weighted.

The mountain *Barbs* are esteemed the best, because they are strongest and largest: they belong to the *Allarbes*, who value them themselves as much as other nations do, and therefore will not part with them to any person, except to the Prince of the band to which they belong, who can at any time at his pleasure command them for his own use: but for the other more ordinary sort, they are to be met with very common in the hands of our nobility and gentry; or if you send to *Languedoc*, or *Provence* in *France*, they may be bought there for forty or fifty pistoles a horse.

Or if you send to *Barbary*, you may buy one for thirty pounds or thereabouts; but in this case the charges and journey will be great, for though it be no great voyage from *Tunis* to *Marseilles* in *France*, yet from *Marseilles* to *Calais*, by land, is the whole length of *France*, and from thence they are shipped for *England*.

The next thing to be considered, is the choice of mares, and according to the Duke of NEWCASTLE's opinion, the finest mare to breed out of, is one that has been bred of an *English* mare, and a stallion of either of these racers; but, if you can't get such a mare, then get a right bred *English* mare by sire and dam, that is well fore-handed, well underlaid, and strong put together in general; but in particular, see that she have a lean head, wide nostrils, open chaul, a big weasand, and the wind-pipe straight and loose; and of about five or six years old; and be sure that the stallion be not too old.

As for the Food of the Stallion.

Keep him as high as possibly you can, for the first four or five months before the time of covering, with old clean oats and split beans, well hulled, and if you please you may add bread to them, such as you will hereafter be directed to make; and now and then a handful of clean wheat may be given him, or oats washed in strong ale, for variety.

Mr. MORGAN advises to scatter bay-salt and anniseeds in his provender; but others are of opinion that this is superfluous, while the horse is in health.

Be sure to let him have plenty of good old sweet hay, well cleansed from dust, and good wheat straw to lie on; water him twice a day at some running stream, or else in a clear standing pond of water, if you cannot have the first; and gallop him after he has drank in some meadow or level piece of ground.

Do not suffer him to drink his fill at his first coming to the water, but after his first draught, gallop and scope him up and down to warm him, and then bring him to the water again and let him drink his fill, galloping him again as before; never leaving the water till he has drank as much as he will.

By this means you will prevent raw crudities, which the coldness of the water would otherwise produce, to the detriment of his stomach, if you had permitted him to drink his fill at first; whereas you allowing him his fill (though by degrees) at last, you keep his body from drying too fast.

Mr. MORGAN, indeed, directs the sweating of him every day, early in the morning, which he says will not only perfect digestion, and exhaust the moisture from his seed, but also strengthen and cleanse his blood and body from all raw and imperfect humours: but others are of opinion it will dry up the radical moisture too fast; and likewise, instead of heightening his pride and lust, weaken him too much.

As for other rules for the ordering him after watering, and the hours of feeding, &c. they will be more proper,

When the stallion is in lust, and the time of covering him is come, which is best to be in *May*, that the foals may fall in the *April* following, otherwise they will have little or no grass.

Pull off his hinder shoes, and lead him to the place where the stud of mares are which you intend for covering; which place ought to be close, well fenced, and in it a little hut for a man to lie in, and a larger shed with a manger to feed your stallion with bread and corn during his abode with the mares, and shelter him in the heat of the day, or in rainy weather: this close ought to be of sufficient largeness to keep your mares well for two months.

Before you pull off his bridle, let him cover a mare or two in hand, then turn him loose amongst them, and put all your mares to him, as well those that are with foal as those which are not, for there is no danger in it; and by that means they will all be served in their height of lust, and according to the intention of nature.

When your stallion has covered them once, he will try them all over again, and those that will admit him, he will serve, and when he has done his business, he will beat against the pales, and attempt to be at liberty, which when your man finds (who is to observe them night and day, and to take care that no other mares are put to your horse, and to give you an account which take the horse and which not, &c.) then take him up, and

and keep him well as you did before, first giving him a mash or two, to help to restore nature; for you will find him little but skin and bones, and his mane and tail will fall off.

Be sure never to give him above ten or twelve mares in a season at most, otherwise you will scarce recover him against the next covering time.

When your stallion is past this use, then buy another, for the best kind will in time degenerate. But the Duke of NEWCASTLE says, you cannot do better than to let your own mares be covered by their sires.

Some advise covering in hand, as the other is called covering out of hand, and is as follows: when you have brought both your horse and your mare to a proper condition for breeding, by art and good feeding, then set some ordinary stone nag by her for a day or two, to woo her, and that will make her so prone to lust, that she will readily receive your stallion, which you should present to her, either early in a morning or late in an evening, for a day or two together, and let him cover in hand once or twice, if you please, at each time observing to give the horse the advantage of ground, and have a person ready with a bucket of cold water to throw on the mare's shape immediately upon the dismounting of the horse, which will make her retain the seed she received the better; especially if you get on her back, and trot her up and down for a quarter of an hour, but take care of heating or straining her: and it will not be amiss if you let them fast two hours after such act, and then give each of them a warm mash, and it is odds but this way your mares may be as well served as the other, and your stallion last you much longer.

If you take care to house the mares all the winter, and keep them well, their colts will prove the better. *See* FOALS *and* COLTS.

Of a Hunting-Match.

The first thing that is to be considered by one who designs to match his horse for his own advantage, and his horse's credit, is not to flatter himself with the opinion of his horse, by fancying that he is a swift, when he is but a slow galloper, and that he is a whole running horse (that is, that he will run four miles without a sob at the height of his speed) when he is not able to run two or three.

Very probably some gentlemen are led into this error, by their being mistaken in the speed of their hounds, who, for want of trying them against other dogs that have been really fleet, have supposed their own to be so, when, in reality, they are but of a middling speed; and because their horse, when trained, was able to follow them all day, and upon any hour, to command them upon deep as well as light earths, have therefore made a false conclusion, that their horse is as swift as the best; but upon trial against a horse that has been rightly trained after hounds that were truly fleet, have bought their experience full dear.

Therefore it is advisable for all lovers of hunting, to procure two or three couple of tried hounds, and once or twice a week to follow them after a train-scent, and when he is able to top them on all sorts of earth, and to endure heats and colds stoutly, then he may better rely on his speed and toughness.

That horse which is able to perform a hare chase of five or six miles briskly, till his body be as it were bathed in sweat; and then, after the hare has been killed in a nipping frosty morning, can endure to stand till the sweat be frozen on his back, so that he can endure to be pierced with cold as well as the heat; and then even in that extremity of cold, to ride another chase as briskly, and with as much courage as he did the former; that horse which can thus endure heats and colds, is most valued by sportsmen.

Therefore in order to make a judgment of the goodness of a horse, observe him after the death of the first hare, if the chase has been any thing brisk; if when he is cold he shrinks up his body, and draws his legs up together, it is an infallible sign of want of vigour and courage: the like may be done by the slacking of his girths after the first chase and from the dullness of his teeth, and the dullness of his countenance, all which are true tokens of faintness, and being tired; and such a horse is not to be relied on in case of a wager.

But if your horse is not only in your own judgment, but also in that of skilful horsemen, a horse of approved speed and toughness, and you have a mind to match him, or to run for a plate, then you may hope for the following advantages:

But first it will not be improper to take notice of the way of making matches in former times, and the modern way of deciding wagers.

The old way of trial was, by running so many train-scents after hounds, as was agreed upon between the parties concerned, and a bell course, this being found not so uncertain, but more durable than hare-hunting; and the advantage consisted in having the trains led on earth most suitable to the qualifications of the horses.

But others choose to hunt the hare till such an hour, and then to run this wild goose chase. *See* WILD GOOSE CHASE.

But this chase was found by experience inhuman, and destructive to good horses, especially when two good horses were matched; for neither being able to distance the other, till being both ready to sink under their riders through weakness, oftentimes they were obliged to draw the match, and leave it undecided, after both the horses were quite spoiled.

This induced them to run train-scents, which were afterwards changed for three heats, and a straight course; and that those who were lovers of hunting-horses might be encouraged to keep good ones, plates have been erected in many places in *England*, purposely for the sake of hunting-horses; and the articles of some places exclude all others, namely, gallopers, from running.

But whether you would match your horse against a particular horse, or put him in for a plate, where he must run against all that come in general, you ought to know the constitution and quality of your horse, before you venture any wager on his head, whether he be hot

and fiery, or cool and temperate in riding: whether he be very swift, but not hard at bottom; or slow, but yet sure; and one that will stick at marks, or what sort of ground he most delights to gallop; whether he delights to go up hill or down hill, or else to skelp on a flat; whether to run on deep or light ground; whether on rack-ways or carpet ground; whether amongst mole-hills, or on meadow ground; whether he be well-winded or thick-winded; so that though he will answer a spur, and mend upon lapping, yet he must have ease by sobs.

All these particulars are necessary to be known, to the end you may draw those advantages from them which may be offered in making matches: As thus for example:

If your horse be hot and fiery, it is odds but he is fleet withal (for generally such horses are so) and delights to run upon light and hard flats, and must be held hard by the rider, that he may have time to recover wind by his sobs, or else his fury will choak him.

But whereas it is the general opinion, that nothing that is violent can be lasting, and therefore that it is impossible that such hot-mettled horses can be tough and hard at bottom; this is reckoned by some to be but a popular error: for that these two qualities have been reconciled at least so far as to make the most fiery horse manageable, and to endure both whip and spur; and if so, although he should not prove at bottom so truly tough as the craving drudge, yet his speed shall answer for it in all points, and serve in its stead by the management of his rider.

The best way of matching such a horse is, to agree to run train scents, and the fewer the better for you, before you come to the course: also in these train scents, the shorter you make your distance the better; and mind, above all things, to make your bargain to have the leading of the first train, and then make choice of such grounds where your horse may best show his speed, and the fleetest dogs you can procure: give your hounds as much law before you as your tryers will allow, and then making a loose, try to win the match with a wind; but if you fail in this attempt, then bear your horse, and save him from the course: but if your horse be slow, but well winded, and a true spurred nag, then the more train-scents you run before you come to the straight course the better: but here you ought to observe to gain the leading of the first train: which in this case, you must lead it upon such deep earth, that it may not end near any light ground.

For this is the rule received among horsemen, that the next train is to begin where the last ends, and the last train is to be ended at the starting-place of the course, therefore remember to end your last on deep earths as well as the first.

In the next place, do not make a match against a horse you do not know, without having first consulted some skilful friend, on whose judgment and honesty you can safely rely, and who is able to give a good account of the speed of your adversary's horse, and his manner of riding; and if it appears that he is any ways answerable to your own in speed or goodness, be not too venturesome, without some reasonable probabilities of winning.

Again, be sure at no time to give advantage of weight, for you will see the inconveniency of it at the latter end of the day: for though a horse does not feel it when he is fresh, yet it will sink him very much when he grows weak. The length of a horse lost by weight in the first train, may prove a distance in the straight course at last, for the weight is the same every heat, though his strength is not.

If, on the other hand, you gain any advantage of weight, that the horsemen shall ride so much weight as you are agreed on, besides the saddle; for by this means the rider, if he be no weight of himself, must carry the dead weight somewhere about him, which will be troublesome to the rider, as well as the horse; and the more so to the latter because it is more remote from his back, than if it were in the saddle, and by consequence will more disorder his stroak if the rider incline to either side than if it were near the center; as is to be seen in a pair of scales, where if the pin be not placed exactly in the middle of the beam, the longest part (as being farther distant from the center) will be the heaviest.

As to the time of dieting, that must be according to the nature of your horse, and the present state of body he is in; for though he may be clean enough for ordinary hunting, yet he may be far enough from that perfect state of body that a match requires; and to keep him in such strict diet all the season (except on such extraordinary occasions) would be an unnecessary expence.

As to the disposition of the horse for running, that is to be known by use and observation, for, in this point, horses differ very much; for some run best when they are high in case; others when they are in a middling condition of flesh; and some again, when they appear to the eye poor and low in flesh: therefore according to the condition and quality of, and the time required to bring him into the best state, the day for the trial of the match ought to be fixed on.

If you have a mind to put him in for some hunting plate, there you have not at your disposal the choice of the ground, the weight, nor the horses you run against, but you must take them as you find them; only the time for bringing your horse into a good condition is at your discretion; in that you may begin to keep him in strict diet as soon or as late as you please, the time for all plates being usually fixed, and annually the same.

HUNTSMAN. He must never forget that every hare has her particular play; that, however, that play is occasioned or changed according to the variation of wind and weather, the weight of the air, the nature of the ground, and the degrees of eagerness with which she is pursued. Nor is he to be unmindful of the numerous accidents she may meet with in her way, to turn her out of her course, to cover her flight, to quicken her speed, or to furnish her with an opportunity of new devices. It is not enough to have a general knowledge of these things before the game is started, but in the heat of action, when most tempted to be in raptures with the sound of

of the horns, the melody of the cry, and the expectation of success, every step we make we must calmly observe the alterations of soil, the position of the wind, the time of the year, and no less take notice with what speed she is driven, how far she is likely to keep on forward, or to turn short behind; whether she has not been met by passengers, frightened by curs, intercepted by sheep; whether an approaching storm, a rising wind, a sudden blast of the sun, the going off of the frost, the repetition of foiled ground, the decay of her own strength, or any other probable turn of affairs, has not abated or altered the scent.

There are other things still no less necessary to be remembered than the former; as the particular quality and character of each dog; whether the present leaders are not apt to over-run it; which are most inclined to stand upon the double; which are to be depended on in the highway, on the ploughed ground, or a bare turf, in an uncertain scent, in the crossing of fresh game, through a flock of sheep, upon the foil or stole back. The size also and strength of the hare will make a difference; nor must the hounds themselves be followed so closely, or so loudly cherished when fresh and vigorous, as after they have run off their speed and mettle, and begin to be tired.

It is necessary for a young huntsman, when the scent lies well, always to keep himself pretty far behind. At such a time, especially if it be against the wind, it is impossible for the poor hare to hold it forward; nor has she any trick or refuge for her life, but to stop short by the way, and, when all are past, to steal immediately back, which is often the occasion of an irrecoverable fault, in the midst of the warmest sport and expectations, and is the best trick the poor hare has for her life in scenting weather; whereas if the huntsman were not too forward, he would have the advantage of seeing her steal off, and turning her aside, or more probably the pleasure of the dogs returning and thrusting her up in view.

It is very common for the fleetest dog to be the best favourite, though it would be much better if he was hanged, or exchanged. Be a dog in his own nature ever so good, yet he is not good in that pack that is too slow for him. There is most times work enough for every one of the train, and every one ought to bear his part; but this is impossible for the heavy ones to do, if they are run out of breath by the unproportionable speed of a light-heeled leader. For it is not enough that they are able to keep up, which a true hound will labour hard for, but they must be able to do it with ease, with retention of breath and spirits, and with their tongues at command. It must never be expected that the indentures of the hare can be well covered, or her doubles struck off (nor is the sport worth a farthing) if the harriers run yelping in a long string, like deer or fox-hounds.

Another thing necessary is to hang up every liar and chanter, not sparing even those that are silly and trifling, without noise or sagacity. It is common enough in numerous kennels to keep some for their music or beauty, but this is perfectly wrong. It is a certain maxim that every dog that does no good, does a great deal of hurt; they serve only to foil the ground, and confound the scent; to scamper before and interrupt their betters in the most difficult points. And we may venture to affirm, by long experience, that four or five couple, all good and trusty hounds, will do more execution than thirty or forty, where a third of them are eager and headstrong, and, like coxcombs among men, noisy in doing nothing.

Above all abhor joining with strangers, for this is the way to spoil and debauch the staunchest hounds, to turn the best mettled into mad-headed gallopers, liars, and chatterers, and to put them on nothing but out-running their rivals, and over-running the scent. The emulation of leading (in dogs and their masters) has been the utmost ruin of many a good cry. Nor are strange huntsmen of much better consequence than strange companions; for as the skill and excellence of these animals consist in use and habit, they should always be accustomed to the same voice, the same notes, or hallooings, and the same turns of chiding, cherishing, pressing, or recalling; nor should the country fellows be allowed, in their transports, to extend their throats.

Nor is it good to encourage change of game, because mere 'squires would be at a great loss to kill some of their time, had they nothing to kill, when hares are out of season. However, I am well satisfied that the best harriers are those that know no other. Nor is it adviseable to let them change for a fresh hare, as long as they can possibly follow the old, nor to take off their noses from the scent they are upon, for the cutting shorter or gaining of ground. This last is the common trick with pot-hunters, but as it is unfair and barbarous to the hare, so you will seldom find it of advantage to the hounds.

HURLE-BONE, IN A HORSE. A bone near the middle of the buttock, very apt to go out of its sockets with a hurt or strain.

HUXING OF PIKE. A particular method for the catching of this sort of fish. For this use, take as large bladders as can be got; blow them up, and tie them close and strong; then at the mouth of each tie a line, longer or shorter, according to the depth of water; at the end of each line fasten an armed hook artificially baited, and put them into the water, with the advantage of the wind, that they may gently move up and down the pond. Now when one master pike has struck himself, it is a most pleasing diversion to see him bounce about in the water with a bladder. When you see him almost spent, take him up. *See* PIKE.

JACK-DAW. A chattering, subtle bird, that is a great devourer of beans, cherries, and other garden-fruits.

A very good method to catch them is, to drive a stake into the ground about four feet high, above the surface of the earth, but so picked at the top, that the jack-daw cannot settle on it; within a foot of which, a hole must be bored through, three quarters of an inch diameter, whereto you should fit a pin or stick, six or eight inches long, then make a loop or spring of horse-hair fastened to a stick or wand of hazle, which may be entered into

the ſtake at a hole near the ground; that done, by bending of the ſtick, ſlip the horſe-hair loop through the upper holes, and put the ſhort ſtick ſo, that the jack-daw when he comes, finding a reſting-place to ſtand conveniently amongſt his food, perches on the ſhort ſtick, which by his weight immediately falls, and gives the ſpring advantage of holding him by the legs.

JARDES, } are callous and hard ſwellings in
JARDONS, } the hinder legs of a horſe, ſeated on the outſides of the hough, as the ſpavin is on the inſide. It is more to be feared than the ſpavin. It is not very common, ſo that but few people know it, though it be as painful as the ſpavin, and makes a horſe halt. In this caſe there is no remedy but firing, which does not always ſucceed.

If upon the fore-ſinew of the leg, between the ſpavin on the inſide and the jardon without, there is a circle that joins them, and encompaſſes the nerve of the inſtep, the horſe is ſpoiled and ruined paſt all recovery.

JARRETIER. An obſolete *French* word ſignifying a horſe whoſe houghs grow too cloſe together.

In, inſide within; and out, outſide without

The inner heel, the outer heel; the inner leg, the outer leg; the in rein, the out rein.

This way of ſpeaking relates to ſeveral things, according as the horſe works to the right or left, upon volts; or as he works along by a wall, a hedge, or ſome ſuch thing.

Thus it ſerves to diſtinguiſh on what hand, or what ſide the horſeman is to give the aids to a horſe upon a manege.

For along by a wall, the outer leg is the leg of a ſide with the wall, and the other leg is the in-leg.

And upon volts; if a horſe works upon the right, the right heel is the inner heel, the right leg the inner leg; and ſo by conſequence, the left heel and left leg muſt be the outer heel and leg.

Now the downright contrary will happen, if the horſe works to the left.

Now-a-days, the riding-maſters, to be eaſier underſtood, uſe the terms right and left; as for inſtance, aſſiſt the horſe with the right heel, with the right leg, with the right rein; taking the ſituation of the heels and legs, with reſpect to the volt. *See* ENLARGE, GALLOP, FALSE, *and* LARGE.

JAUNDICE IN SHEEP:

Burn two ounces of alum; beat it to powder, with an ounce of turmeric. Put a drachm of ſaffron to them; and give this warm in half a pint of man's ſtale urine.

JAW-BONES OF A HORSE, ſhould be narrow and lean, but the diſtance between them and the throat, large and hollow, that he may the better place his head: if the jaw-bone be too ſquare, that is, if there be too great a diſtance between the eye and that part of it which touches his neck, it is not only ugly and unſeemly, but even hinders him from placing his head; and if there be but little diſtance betwixt the jaw-bones, then as ſoon as you pull the bridle to bring his head into its moſt becoming poſture, the bone meeting with his neck will hinder him, eſpecially if alſo he have a ſhort and thick neck, with that imperfection.

JAW-TEETH. *See* TEETH OF A HORSE.

JAY. *See* JACK-DAW.

JENNY-WREN. A curious fine ſong-bird of a chearful nature, ſo that none can exceed him in his manner of ſinging.

This bird is of a pretty ſpeckled colour, very pleaſant to the eye, and when he ſings, cocks up his tail, throwing out his notes with much pleaſure and ſprightlineſs.

The hen breeds twice a year; firſt, about the latter end of *April*; makes her neſt with dry moſs and leaves, ſo artificially that it is a very hard matter to diſcover it, it being amongſt ſhrubs and hedges, where ivy grows very thick; ſome build in old hovels, and barns, but they are ſuch as are not uſed to hedges.

They cloſe their neſt round, leaving but a little hole to go in and out at, and will lay abundance of eggs, ſometimes to the number of eighteen, nay, ſixteen young ones have been taken out of one neſt, which, conſidering how ſmall the bird is, appears ſtrange.

Their ſecond time of breeding is in the middle of *June*, for by that time the other neſt will be brought up, and ſhift for themſelves; but if you intend to keep any of them, take them at twelve or fourteen days old out of the neſt, and give them ſheep's heart and egg, minced very ſmall, taking away the fat and the finews, or elſe ſome of a calf's or heifer's heart.

They are to be fed in their neſts very often in a day, giving them one or two morſels at one time, and no more, leſt they caſt it up again, by receiving more than they could bear or digeſt, and ſo expire.

They ſhould be fed with a little ſtick; at the end whereof, take up the meat about the bigneſs of a white pea; and when you perceive them to pick it up from the ſtick themſelves, put them into cages; afterwards, having provided a pan or two, put ſome of the ſame meat therein, and alſo about the ſides of every cage to entice them to eat; however, you muſt ſtill feed them five or ſix times a day for better ſecurity, leſt they ſhould neglect themſelves and die, when all your trouble is almoſt paſt; as ſoon as they have found the way to feed alone, give them now and then ſome paſte; if you perceive them to eat heartily, and like it very well, you may forbear giving them any more heart.

Further, you muſt once in two or three days give them a ſpider or two; and if you have a mind your bird ſhould learn to whiſtle tunes, take the pains to teach him, and he will anſwer your expectation.

Now for the diſtinguiſhing of cocks from hens, when you have got a whole neſt, obſerve which are the browneſt and largeſt, and mark them: alſo take notice of their recording; for ſuch of them as record themſelves in the neſt before they can feed themſelves, and thoſe whoſe throats grow big as they record, they are certainly cocks.

JESSES. Ribbons that hang down from garlands or crowns

crowns in Falconry, alſo ſhort ſtraps of leather faſtened to the hawk's legs, and ſo to the vervels.

IMPING. This term, in Falconry, ſignifies the inſerting of a feather in the wing of a hawk, in the place of one that is broke.

IMPOSTHUME IN HORSES is an unnatural ſwelling of humours, or corrupt matter in any part of the body.

This diſtemper may happen to a horſe ſeveral ways, as by a collection of filthy humours, cauſing ſwellings, which in time grow to an inflammation, and at laſt break out into foul, mattery, and running ſores.

When an inflammatory ſwelling does not readily give way to bleeding, purging, rubbing the part with ſpirit of wine, vinegar, or with ſuch other means as are uſually applied for diſperſing; or, if it appears at the decline of a fever, or any other diſeaſe; all cooling and repelling methods ſhould be avoided, and ſuppuration promoted

For the cold, ſlow ſort of abſceſſes that ſuppurate with difficulty, the gum plaiſter, mixed with one fourth part of the mercurial plaiſter, may be proper enough: it ſhould be renewed when it will ſtick on no longer, for only until then it is good. For the inflammatory ſort, which ſoon fill with good matter, poultices are the beſt application, and the following neat and cheap one may anſwer in every caſe of this kind.

A Suppurating Poultice.

Take a proper quantity of wheat-bran, ſcald it with boiling hot water, enough to make it into the conſiſtence of a poultice, then add to it a ſmall quantity of lard, or any other greaſe; and while it is as warm as you can bear it when laid on the back of your hand, apply it to the ſwelling.

All poultices ſhould be ſtiff enough to prevent their running; and when they are deſigned to promote ſuppuration, they ſhould be taken off and warmed again as often as they cool, which will be at leaſt every four hours.

Continue the poultice until, by preſſing the abſceſs gently with your finger, you can perceive the matter in it fluctuate; at which time it will be proper to make an opening in the part where the ſkin ſeems the thinneſt: make the opening as large as you conveniently can, for then the matter will be well diſcharged, and the wound will be healed with leſs difficulty.

The matter being diſcharged, dreſs with dry lint or ſoft tow, gently preſſed into the opening, then cover it and the whole remaining ſwelling with a pledget of tow, ſpread with the digeſtive ointment; and over theſe, if the ſituation of the part will admit, lay a warm poultice, which may now be renewed only night and morning, until all remaining hardneſs in the abſceſs is diſſolved; after which, once a day will be often enough to dreſs the wound, which will ſoon heal, with only a pledget of tow, thinly ſpread with the digeſtive ointment, properly ſecured.

The Digeſtive Ointment.

Take of linſeed oil, two pounds; yellow roſin and yellow wax, of each one pound; Venice-turpentine, three ounces; melt them together over a gentle fire, then ſtir it continually until it is cool enough to put into an earthen pot.

Sometimes the wound and the bottom of the abſceſs digeſts unkindly, the matter becoming thin and ſharp, in which caſe the aſſiſtance of the diſcutient fomentations each time the dreſſings are removed, hath uſually the deſired effect; and if the bottom of the ſore can eaſily be come at, pledgets of the mercurial digeſtive may be applied thereto once a day.

The Mercurial Digeſtive.

Take half an ounce of red precipitate, in fine powder, mix it well with four ounces of the digeſtive ointment.

A Diſcutient Fomentation.

Take of chamomile-flowers, and common wormwood, each three ounces; boil them a few minutes in ten pints of water, then pour off the liquor for uſe.

Fomentations are always to be uſed in the following manner: The fomentation being already as hot as you can bear it with your hand, you muſt have two flannel cloths large enough, when three or four times doubled, to cover the part which is to be fomented; dip one of theſe cloths into the hot liquor, and immediately wring it as dry as you can; then apply it to the diſeaſed part, keeping it cloſe there until the heat begins to abate, by which time the other cloth will be ready to be applied, which muſt be done as quickly as poſſible after the removal of that which was firſt laid on: and thus continue to apply them alternately, until eight or twelve have been applied.

Abſceſſes are ſometimes formed in the eye, occaſioning great inflammation and pain: the matter is ſometimes ſuperficial, and then the abſceſs is more prominent; at other times it is deeper, and aſſumes a flatter form; but when it is very deep, there will be ſeldom any ſwelling at all; in which caſe it burſts inward, and the eye is totally deſtroyed. In the other two caſes, the treatment will be ſo much the ſame with that of abſceſſes in general, that the peculiarities required on account of the ſituation, will be readily ſuggeſted by every practitioner. For the moſt part, a loſs of ſight is the conſequence of them all, becauſe of the cicatrix or of the ulcer which is left behind.

INCORDING. Burſtenneſs in a horſe. *See* RUPTURE.

INN OR INNER. In the manege, is applied differently according as the horſe works to the right or left, upon the volt, or as he works along by a wall, a hedge, or the like: for in moving by a wall, the leg next the wall

wall is called the outer leg, and the other the inner leg: and upon volts, if a horse works to the right, the right heel is the inner heel, and the right leg the inner leg; but if he works to the left, the left heel is the inner heel, &c. At present riding-masters, in order to be more easily understood, generally use the term right and left, instead of outer and inner.

INSTEP is that part of the hinder leg of a horse that corresponds to the shank in the fore legs; extended from the ham to the pastern joint. It should be big, flat, and in a perpendicular line to the ground, when the horse is in his natural posture of standing; so that when the insteps do not stand perpendicularly, it is a certain sign of weakness, either in the reins or hinder quarters.

INTERFERE, OR CUT. To knock or rub one heel against another, in going, as horses sometimes do.

There are four accidents that cause a horse to interfere.

1. Wearinesſ.
2. Weakness in his reins.
3. Not knowing how to go.
4. His not being accustomed to travel.

To which may be added, his being badly, or too old shod.

It happens more frequently behind than before, and is easily helped by shoeing, especially if the horse be young.

It is soon discovered, by the skin's being cut on the insides of the pastern-joints, and many times galled to the very bone, so that the horse often halts with it, and has his pastern-joints swelled.

To redress this grievance, 1. If a horse cuts through wearinesſ, there is no better remedy than giving him rest, and feeding him well.

2. If he cuts before, take off his two fore-shoes, take down the out-quarter of each foot very much, and place the inner edge of the shoe, so as it may exactly follow the compass of his foot, without it's any ways exceeding towards the heel, then cut the sponges equal with the heel, and rivet the nails so nicely into the horn, that they may not at all appear above it, or else burn the horn with the point of a red-hot iron, a little below the hole of each nail, which done, beat down and rivet them in those holes.

If after this method of shoeing he still continues to cut himself, you are to thicken the inner quarters and sponges of his shoes, so as they may double the thick of those on the outside, and always pare down his out-quarters even, almost to the quick, without the least touching those on the inside; but be sure to rivet the nails very justly and close.

3. If the horse cut behind, unshoe him, and pare down his out-quarters, even almost to the quick; give his shoes calkins only on the inside, and such a turn as may make them absolutely follow the compass and shape of his foot without exceeding it, especially in the inner quarters; and above all, rivet the nails exactly, for one single rivet may cause a great disorder.

4. If notwithstanding all these precautions, your horse does not forbear cutting, you must (besides what has been already ordered) take care that no nails at all be drove upon the inside, but only make a beak at the toe to keep the shoe firm in its place, so that continuing this method for some time, the horse will learn to walk, and no longer interfere, though he were afterwards shod in the usual manner.

5. To prevent this disorder, some fix little boots of leather, or of an old hat, about the pastern-joints, which are made narrower at top than bottom, and therefore only fastened at top.

6. Others wrap about the pastern-joint a piece of sheep's skin, with the woolly side next to the horse; and when it is worn out, apply a new one.

INTERMEWING (among Falconers) is the hawk's mewing from the first change of her coat, till she turn white.

JOCKEY. One that trims up horses, and rides about with horses for sale.

JOUK (in Falconry) a hawk is said to jouk when she falls asleep.

JOURNEY. To travel by land, properly as much ground as might be passed over in a day; also a tract or extent of ground, way or march.

Directions for preserving a Horse sound upon a Journey.

See that his shoes be not too straight, or press his feet, but be exactly shaped; and let him be shod some days before you begin a journey, that they may be settled to his feet.

Observe that he is furnished with a bitt proper for him, and by no means too heavy, which may incline him to carry low, or to rest upon the hand when he grows weary, which horsemen call making use of his fifth leg.

The mouth of the bitt should rest upon his bars, about half a finger's breadth from his tushes, so as not to make him frumble his lips; the curb should rest in the hollow of his beard, a little above the chin; and if it gall him, you must defend the place with a piece of buff, or other soft leather.

Take notice that the saddle does not rest upon his withers, reins, or back-bone, and that one part of it does not press his back more than another.

Some riders gall a horse's sides below the saddle with their stirrup-leathers, especially if he be lean; to hinder it you should fix a leather strap between the points of the fore and hind bows of the saddle, and make the stirrup-leather pass over them.

Begin your journey with short marches, especially if your horse has not been exercised for a long time: suffer him to stale as often as you find him inclined, and not only so, but invite him to it; but do not excite your mares to stale, because their vigour will be thereby diminished.

It is adviseable to ride very softly, for a quarter or half an hour before you arrive at the inn, that the horse not being too warm, nor out of breath, when put into the stable, you may unbridle him; but if your business obliges you to put on sharply, you must then (the weather being warm) let him be walked in a man's hand, that

that he may cool by degrees; otherwise, if it be very cold, let him be covered with cloths, and walked up and down in some place free from wind; but in case you have not the conveniency of a sheltered walk, stable him forthwith, and let his whole body be rubbed and dried with straw.

Although some people will have their horses legs rubbed down with straw as soon as they are brought into the stable, thinking to supple them by that means; yet it is one of the greatest errors that can be committed, and produces no other effects than to draw down into the legs those humours that are always stirred up by the fatigue of the journey: not that the rubbing of horses legs is to be disallowed, on the contrary, we highly approve of it, only would not have it done at their first arrival, but when they are perfectly cooled.

Being come to your inn, as soon as your horse is partly dried, and ceases to beat in the flanks, let him be unbridled, his bitt washed, cleansed and wiped, and let him eat his hay at pleasure.

If your horse be very dry, and you have not given him water on the road, give him oats washed in good mild ale.

The dust and sand will sometimes so dry the tongues and mouths of horses, that they lose their appetites: in such case give them bran well moistened with water, to cool and refresh their mouths: or wash their mouths and tongues with a wet sponge, to oblige them to eat.

The foregoing directions are to be observed after moderate riding, but if you have rode excessive hard, unsaddle your horse, and scrape off the sweat with a sweating-knife, or scraper, holding it with both hands, and going always with the hair; then rub his head and ears with a large hair-cloth, wipe him also between the fore-legs and hind-legs; in the mean while, his body should be rubbed all over with straw, especially under his belly and beneath the saddle, till he is thoroughly dry.

That done, set on the saddle again, cover him, and if you have a warm place, let him be gently led up and down in it, for a quarter of an hour, but if not, let him dry where he stands.

Or you may unsaddle him immediately; scrape off the sweat; let the ostler take a little vinegar in his mouth and squirt it into the horse's; then rub his head, between the fore and hind-legs, and his whole body, till he is pretty dry; let him not drink till thoroughly cool and has eat a few oats; for many, by drinking too soon, have been spoiled. Set the saddle in the sun or by a fire in order to dry the pannels.

When horses are arrived in an inn, a man should, before they are unbridled, lift up their feet, to see whether they want any of their shoes, or if those they have do not rest upon their sides, afterwards he should pick and clear them of the earth and gravel, which may be got betwixt their shoes and soles.

If you water them abroad, upon their return from the river, cause their feet to be stopped with cow-dung, which will ease the pain therein; and if it be in the evening, let the dung continue in their feet all night, to keep them soft and in good condition; but if your horse have brittle feet, it will be requisite to anoint the fore-feet, at the on-setting of the hoofs, with butter, oil, or hog's grease, before you water him in the morning, and in dry weather they should be also greased at noon.

Many horses, as soon as unbridled, instead of eating lay themselves down to rest, by reason of the great pain they have in their feet, so that a man is apt to think them sick, but if he looks to their eyes, he will see they are lively and good, and if he offers them meat as they are lying, they will eat it very willingly; yet if he handles their feet, he will find them extremely hot, which discovers their sufferings in that part.

You must therefore see if their shoes do not rest upon their soles, which is somewhat difficult to be certainly known, without unshoeing them, but if you take off their shoes, then look to the inside of them, and you may perceive that those parts which rest upon the sole, are more smooth and shining than the others: in this case you are to pare their feet in those parts, and fix on their shoes again, anointing the hoofs, and stopping the soles with scalding hot black pitch or tar.

After a long day's journey, at night feel your horse's back, if it be pinched, galled or swelled, (if you do not immediately discover it, perhaps you may after supper) there is nothing better than to rub it with good brandy and the white of an egg. If the galls are between the legs, use the same remedy; but if the ostler rubs him well between the legs he will seldom be galled in that part.

In order to preserve horses after travel, take these few useful instructions. When you are arrived from a journey, immediately draw the two heel nails of the fore-feet; and, if it be a large shoe, then four: two or three days after you may bleed him in the neck, and feed him for ten or twelve days only with wet bran, without giving him any oats; but keep him well littered.

The reason why you are to draw the heel-nails is, because the heels are apt to swell, and if they are not thus eased, the shoes would press and straighten them too much: it is also advisable to stop them with cow-dung for a-while, but do not take the shoes off, nor pare the feet, because the humours are drawn down by such means.

The following bath will be very serviceable for preserving your horse's legs: Take the dung of a cow or ox, and make it thin with vinegar, so as to be of the consistence of thick broth, and having added a handful of small salt, rub his fore-legs from the knees, and the hind-legs from the gambrels, chafing them well with and against the hair, that the remedy may sink in and stick to those parts, that they may be all covered over with it. Thus leave the horse till morning, not wetting his legs, but giving him his water that evening in a pail: next morning lead him to the river, or wash his legs in well-water, which is very good, and will keep them from swelling.

Those persons, who to recover their horses feet, make a hole in them, which they fill with moistened cow-dung, and keep it in their fore-feet during the space of a month, do very ill, because, though the continual moisture that issues from the dung, occasions the growing

ing of the hoof, yet it dries and ſhrinks it ſo exceſſively when out of that place, that it ſplits and breaks like glaſs, and the foot immediately ſtraitens.

For it is certain that cow-dung (contrary to the opinion of many people) ſpoils a horſe's hoof: it does indeed moiſten the ſole, but dries up the hoof, which is of a different nature from it.

In order therefore to recover a horſe's feet, inſtead of cow-dung, fill a hole with blue wet-clay, and make him keep his fore-feet in it for a month.

For a horſe that has been rid extremely hard, that there is danger of foundering, ſee an excellent remedy under the head FOUNDERING IN THE FEET.

Moſt horſes that are fatigued, or over-rid, and made lean by long journies, have their flanks altered without being purſy, eſpecially vigorous horſes that have worked too violently.

There is no better method to recover them, than to give each o them in the morning, half a pound of honey very well mingled with ſcalded bran, and when they readily eat the half pound, give them the next time a whole one, and afterwards two pounds, every day continuing this courſe till your horſes are empty, and purge kindly with it; but as ſoon as you perceive that their purging ceaſes, forbear to give them any more honey.

You may adminiſter powder of liquorice in the ſcalded bran for a conſiderable time; and to cool their blood, it will not be improper to let them have three or four gliſters: if their flanks do not recover, give them powder for purſive horſes; *which ſee under that Article.*

In caſe the horſe be very lean, it is expedient to give him ſome wet bran, over and above his proportion of oats; and graſs is alſo extraordinarily beneficial if he be not purſive.

If it be a mare, put her to a horſe, and if ſhe never had a foal before it will enlarge her belly.

Sometimes exceſſive feeding may do horſes more harm than good, by rendering them ſubject to the farcy.

You ſhould therefore be cautious in giving them too great a quantity at a time, and take a little blood from them now and then.

When a horſe begins to drink heartily, it is a certain ſign that he will recover in a ſhort time; but as to the method of giving him water during a journey, *ſee* WATERING OF HORSES.

ITCH IN HORSES, a diſtemper which may be perceived by their rubbing their legs till the hair comes off.

Bleed your horſe well; take wood aſhes a peck, burdock-roots a handful or two, man's urine two gallons, and the like quantity of water wherein tobacco-ſtalks have been ſteeped; boil them into a lye, and with it waſh the grieved part when it is very hot. Or,

Uſe a mixture of two ounces of ſorbs, which muſt be infuſed for ſix hours in a pint of ſtrong vinegar, and ſet it on the fire; and rub the part affected with it twice, and it will cure it.—It will alſo be proper to bleed him in the bows.

ITCH, OR SCAB, IN SHEEP; this comes by over-much rainy weather, miſts, or fogs, too much expoſing them abroad to heats and colds.

Take the juice of rue, tar-water, and gooſe-greaſe, and anoint well the places as hot as may be endured, having firſt clipt away the wool; then clap ſome light wool over it, or flock-ſhreds, and it will peel off. And, to make the ſpeedier cure, let blood in the tail, and under both the ears, and give in a glaſs of wine the juice of carduus and flour of brimſtone.

ITCH, IN GOATS.

Take the tender tops of broom, and ſteep them when bruiſed in man's urine a night or two; and, by waſhing them with this warm, it will kill the itch, and keep the hair from coming off.

JUCKING-TIME, the ſeaſon of going to the haunts of partridges, very early in the morning, or in the cloſe of the evening, there to liſten for the calling of the cock-partridge, which will be very loud, with no ſmall eagerneſs, and will make the hen anſwer him, ſo that they ſoon come together, as may eaſily be known by their chattering and rejoicing notes.

Whereupon you may take your range about them, drawing in, little by little, to the place where you heard them juck.

JUKE, OR JUG: to perch and rooſt as a hawk and other birds do.

KEEPER OF THE FOREST, otherwiſe called, chief warden of the foreſt, is he that has the principal government of all things belonging to a royal foreſt, and the check of all the other officers; ſo that the Lord Chief-Juſtice in Eyre of the foreſt, when he thinks fit to hold his juſtice-ſeat, ſends out his general ſummon to the keeper forty days before, to warn all under-officers to appear before him at the day aſſigned in the ſummons.

KENNEL, a place or little houſe for hounds; and in a metaphorical ſenſe, uſed for the pack of hounds itſelf.

To make a compleat kennel, three conveniences ought to be obſerved, *viz.* a ſweet air, freſh water, and the morning-ſun, for which the following rules may be uſeful:

The court ſhould be large, for the more ſpacious it is, the better it will be for the hounds to refreſh themſelves in; and it ſhould be well walled, or fenced about, to prevent their getting out, but not ſo high as to keep out the ſun or wind.

The water, if poſſible, ſhould run through ſome part of the court or yard; or for want thereof, have a well with a ſtone trough about a foot and a half high, always kept with freſh water, to the end the hounds may drink when they pleaſe; and at one end of the trough there muſt be a hole to let out the water for cleanſing it.

Let the kennel be built in the higheſt part of the court, in which there ſhould be two rooms, one of which ſhould be larger than the other, with a large chimney to make a fire, when need requires.

This room ſhould be raiſed about three feet from the ground, and in the floor there ſhould be two gutters for the conveyance of the urine.

There

There must be dispersed up and down small bedsteads raised a foot from the floor, with holes pierced through the planks for drawing away their urine.

The other room must be for the huntsman to keep his poles, whips, liams, salves, and the like necessaries; there should be a copper for the boiling, dressing, and ordering of their food, when they come home wet and weary; for at such times, they should be cherished as instruments of your recreation and profit, that they may delight in your service, and taste of your bounty, and you need not doubt but to have credit of them in the field.

Be careful not to give them any thing to drink in vessels of copper; and as to the proportion and quality of allowance for food, it must be ordered with relation to the nature of the hounds and their sizes: three bushel and a half of wheat bran, will serve ten couple and a half of middling sized hounds a week, giving them sometimes beef broth, whey, slipt-milk, chippings of bread, bones, and sometimes a little horse-flesh; for change of food creates a good appetite, and preserves health.

The oats and wheat bran must be boiled and thickened with milk and butter-milk, with some chippings, or some broken meat boiled therein.

As concerning horse flesh, those best skilled this way, think of all their foods (provided it be given with discretion) horse-flesh the best, and hottest; but be sure to flay, or skin the beasts, lest the dogs discerning the hair, may fall on them when living in the field: as for dogs that are accustomed to hunt the hare, it is not good to give them any meat, because it is apt to withdraw their scent or affections from the chase, as their flesh is not very sweet, nor their scents very strong.

If the huntsman perceives that through long and frequent chases the hounds fall away, he must be more careful in feeding and cherishing them up with some good broth, of boiled oxen or sheep's hearts.

On such days as the hounds do not hunt, the best times to feed them are early, before sun-rising, and late in the evening, after sun-set; and on the days they hunt, they ought to be rewarded as they come home, be it when it will, with a good supper, for nothing is a greater discouragement to a hound than to go to sleep with an empty belly after hard labour.

If you have more dead flesh than you have present occasion for, it may be preserved a week or ten days sweet, by burying it under ground. *See* ENTERING OF HOUNDS.

To KENNEL; a term applied by fox-hunters to a fox when he lies in his hole.

KERNELS under the throat in horses, how to remove:

Take half a pint of brandy or aqua vitæ, put into it a quarter of a pound of common soap: boil them till they become thick as a plaster, and apply it plaster-wise to the place grieved; and, if no store of corruption or a contraction of evil humours attend those kernels, then it will sink them, so that they will not be offensive; and, if there be humours, it will break and disperse them.

KESTREL, a kind of hawk. *See* CASTREL.

KICKER AGAINST THE SPURS. *See* RAMINGUE.

KIDS, to wean:

Get them from their dams, and nourish them some days with milk; then give them some brousings of green leaves if in summer, and in winter green leaves, or ears of wheat, boiled barley or bran; and by degrees they will shift well for themselves.

KIDNEYS OF HORSES, the diseases and cure, *see* URINE.

KINDER (amongst Hunters) a company of cats.

To KINDLE, the term used for a rabbet when she brings forth her young.

KINK IN ANGLING, is a term used in trowling, when the line is twisted between the top of the rod and the ring, through which it ought to run freely; or when part of the line twists about the other part that is coiled in your left hand. Silk lines are more apt to kink than hair-lines.

KIPPER-TIME, a space of time between the festival of the invention of the Holy Cross, *May* 3, and *Twelfth-Day*; during which, salmon-fishing in the river *Thames*, from *Gravesend* to *Henly*, was forbidden, by ROT. PARL. 50 EDW. III.

KITES, hawks, and other birds of prey, wait for chickens, pigeons, pheasants; and upon which account it is necessary that the countryman be constantly furnished with a good fowling-piece to destroy and scare them away.

You may also place small iron gins about the breadth of one's hand, made like a fox gin, and baited with raw-flesh, which is a very good means to catch them; and further they may be frighted away by straining lines, or pieces of nets over the places where you keep pigeons, pheasants, *&c.*

Steep the entrails of pigs, fowls, or rabbets, in the lees of wine into which you have infused a quantity of nux vomica, and throw a bait where the kites come in the evening, or early in the morning. This will intoxicate them so, that a person waiting near the spot may easily take them.

Or, get three small rods growing at the end of a bough, and place them on pretty big forked sticks, set in the ground, when you have rubbed them over with birdlime; so order it that two may lie on the ground, a third over them, and a stale of a live mouse or chicken, which will make them eagerly swoop, when, the birdlimed twigs taking their wings, it will stop their rising; or, if they flutter up, they will fall again, so that you may take them if you watch for them. You may also take them with traps or strings so baited.

To recover them so as to tame them. When they are caught, during the fit of intoxication pour a little sallad oil down their throats and rub their heads with strong white-wine vinegar; and the cure will be speedily effected.

To KNAP; to snap or break, to pick at; amongst hunters, the same as to browse, or to feed upon the tops of young leaves, *&c.*

KNEE OF A HORSE, is the joint of the fore-quarters, that joins the fore thigh to the shank.

LAIR, a term in hunting which ſignifies the place where the deer harbour by day.

LAMB, leaſ-ſickneſs in. This often comes by too much brouſing on hawthorn or oak leaves; known by ſtaggering or turning round, through the chillineſs of blood cauſed by ſuch feeding, or phlegm amaſſed about the brain.

Diſſolve aſſafœtida in warm water, and put half a ſpoonful into each ear of the lamb or ſheep, and ſtop the ear cloſe; and ſo the cure will be wrought, if timely taken.

LAMB yeaned ſick, to cure:

Boil a little ſaffron and cinnamon in ſome of the milk of the dam, and give it the lamb, and it will grow healthful and ſtrong.

LAMB, to prevent the ewe caſting:

If you perceive a weakneſs in the ewe, to bring forth with pain, or fear the loſs of the lamb, lay her ſoft, and boil a little horſemint (or, for want of that, other mint) in a pint of ale, and ſo give it her warm, and ſhe will yean with eaſe.

LAMENESS IN SHEEP, which is occaſioned by too much wool growing in the fleſhy part of their feet.

Rub between their claws, alum, vinegar, and bay-ſalt.

LAME; a horſe is ſaid to be lame of an ear, when he halts upon a walk or a trot, and keeps time in his halting with the motions of his head, for all lame horſes do not keep time after that rate. *See* HALTING.

LAME OF THE BRIDLE, is likewiſe uſed by the way of raillery, to ſignify the ſame thing.

LAMENESS IN A HORSE, in any joint, limb, or member of the body, may be found out three ways:

Cauſe him to be turned at the halter's end, on either hand, ſuddenly and ſwiftly, upon as hard a way as can be picked out; and if he has any ache, wrench, or grief in his fore parts, it will appear when he turns upon that hand on which the grief is; he will favour that leg, and ſo run both towards and from the man, eſpecially if done at a little yielding hill: but if you cannot find it out this way,

Get upon the horſe's back, and ride till you have heated him thoroughly, and ſet him up for two or three hours, till he is cold: then turn him at the halter's end, or ride him again, and the leaſt grief that is in him may eaſily be diſcovered.

If you would know whether the grief proceeds from a hot or cold cauſe; obſerve, if it be from heat, he will halt moſt when he is hot; but if it be from a cold cauſe, he will halt leaſt when he is hot, and moſt rid or travelled; and if it be from cold, he will do it moſt at his firſt ſetting out, while he is cold.

Lameneſs in the Stiffle.

A horſe that has contracted a lameneſs in the ſtiffle generally treads on his toe, and cannot ſet his heel to the ground without great difficulty and pain. When you find this is the caſe, bathe it well with warm vinegar, and if a puffy ſwelling appears, foment it well with a woollen cloth, wrung out of hot vinegar, or a decoction of wormwood, bay-leaves and roſemary, adding half a pint of ſpirit of wine to a quart of the decoction. Let this operation be continued till the ſwelling diſperſes, and then bathe the part with the medicines above mentioned.

The tumour will ſometimes ſuppurate, but ſeldom; which ſoon perfects the cure. Should a rowel be neceſſary, any convenient part will do. The accident taken in time and properly treated, is by no means dangerous.

A Lameneſs in the Whirle-bone.

A lameneſs in this part and the hip is diſcovered by the horſe's dragging his leg after him, and dropping backward on his heel when he trots. If the muſcles of the hips only are injured, the lameneſs is eaſily cured; but if the ligaments of the joints are affected, the cure is often very difficult, tedious and uncertain. But whatever be the caſe, the method of cure is the ſame; which conſiſts in bathing the parts well with cooling medicines four or five times a day. If the injury conſiſts in a muſcular ſtrain only, this bathing will remove the complaint, and the horſe will be ſoon fit to do his buſineſs. But if the ligaments are injured, time and reſt alone can reſtore the proper tone of the injured parts; and therefore the beſt method will be to turn him to graſs.

Where the whirle-bone or hip is beat down from its ſocket, it will ſo remain; and yet perhaps the horſe may do conſiderable ſervice. The cure is generally bliſterings, firings, aſtringents, and reſt. *See* STRAINS.

Lameneſs in the Shoulder occaſioned by the Saddle.

Take brandy and ſpirit of turpentine, an equal quantity; beat them up together, and rub all the part that has been hurt by the ſaddle; and be ſure place your ſaddle farther backward when you ride him again. If you have no ſpirit of turpentine, take ſoap and brandy, and rub againſt the hair till you make a lather; repeat this three or four times ſucceſſively, as faſt as it dries in. For want of ſoap, you may uſe roach-alum, and, for want of brandy, urine. But, if you can get ſpirit of turpentine, the whites of eggs, brandy, and urine, the beſt way is to make a compoſition of them all, as directed for horſes hurt on the withers, and rub the horſe with it four or five times, which will effect a cure; you may uſe the ſame remedies in other places above-mentioned; but if the inflammation be great, the diſorder of long continuance, and one ſhoulder appears thicker than the other, you may introduce a rowel, which ſhould be made with tow, dipped in warm ointment of baſilicon; keep it in a fortnight, and, in the mean time, rub the ſhoulder with the following ointment.—Take ointments of marſh-mallows, poplar-buds, roſes, oil of bays, and honey, of each two ounces; melt them together,

ther, and ſtir the compoſition till it is cold; then uſe it once every day, and make more if this be not found ſufficient.

LAMPAS, LAMPERS, LAMPRASS, } is a ſort of ſwelling in the palate of a horſe's mouth, *i. e.* an inflammation in the roof of his mouth behind the nippers of his upper jaw, ſo called becauſe it is cured by burning with a lamp or hot iron.

It is cauſed by the ſuper-abounding of blood, and its reſorting to the firſt furrow of the mouth, near to the fore-teeth, which cauſes the ſaid furrow to ſwell as high as the gathers, which will hinder him from feeding, and cauſe him to let his meat fall half chewed out of his mouth again.

This is a natural infirmity with which all horſes are affected ſooner or later, and every common farrier can cure it.

The uſual method of cure is, to take it away with an inſtrument of iron made for that purpoſe, and heated red hot.

But in the operation great care muſt be taken, that in burning the fleſh you do not touch the bone; for if you do, the bone will ſcale, and ſeveral dangerous conſequences may follow.

LANDING-NET, IN ANGLING, a ſmall net extended upon a ring or hoop, and faſtened to the end of a long manageable pole, to aſſiſt in bringing fiſh to land.

LANDING-HOOK, IN ANGLING, is alſo neceſſary to the ſafe bringing large fiſh to ſhore, and are made with a ſcrew to faſten into a ſocket at the end of a pole, which when your fiſh is entangled, you put it into its mouth, and draw it to land. It is uſed chiefly for barbel, ſalmon, and other ſtrong fiſh.

LANNER, LANNERET, } OR TUNISIAN FALCON. The lanner is a hawk common in all countries, eſpecially in *France*, making her eyry on high trees in foreſts, or on high cliffs near the ſeaſide.

She is leſs than the falcon-gentle, fair-plumed when at enter-mewer, and of ſhorter talons than any other.

LARGE; a horſe is ſaid to go large and wide when he gains or takes in more ground in going wider of the centre of the volt, and deſcribing a greater circumference.

LARK, a ſmall grey bird, that ſings in the morning when it is fair weather, and breeds in *May*, *July*, and *Auguſt*, when the young ones are able to quit their neſts in ten or twelve days: there are larks that fly in flocks, and theſe are the firſt birds that proclaim the approach of ſummer; and others, that keep more cloſe to the ground, as the ſky-lark, and wood-lark; both ſorts feed upon worms and ants: they are good food, when young and well fed: their fleſh is firm, brown, juicy, and eaſy of digeſtion. They make uſe of the heart and blood of a lark in the wind and ſtone-cholic: they are alſo accounted good for thoſe troubled with the gravel, and phlegm in the kidneys and bladder.

The way of taking larks is with nets, as they do ortolans, only they uſe a looking-glaſs for the firſt, known with us by the name of doring, or daring, and the callers are ſet upon the ground; whereas thoſe for ortolans, are placed upon ſmall wooden forks.

The looking-glaſs made uſe of for this purpoſe, is made of ſeveral pieces, deſcribed Plate VIII. by the figures 1, 2, 3. Take a piece of wood A, C, an inch and half thick, and about nine inches long; it muſt be cut in ſuch a manner as to bend like a bow, as you ſee at A, B, C, and that it may have ſix faces according to its length.

The figure marked 1, 2, 3, 4, 5, 6, repreſents its form or cut; that at 6 undermoſt, muſt be an inch and a half broad; the faces ought ſo to diminiſh in thickneſs that the uppermoſt at 3 ſhould be but half an inch broad; the five corners, 1, 2, 3, 4, 5, muſt be let to receive as many pieces of looking-glaſs: in the middle of the lower face or corner of the wood marked 6, or B, in the firſt figure, a hole muſt be made to receive a little wooden peg ſix inches long, and a finger thick, a little pointed at the end, with a ſmall hole in the middle 1, there to faſten a cord.

Then take another piece of wood, ſix inches thick, and a foot long, ſharpened at the end Q, in order to fix it to the ground; make a mortiſe in it at M, O, about two inches high, and one inch and a half deep or broad; then bore or pierce a hole in the ſaid piece above at N, and continue the hole to the bottom of the notch M, O; into this hole you are to put the peg I, B, as repreſented in the third figure; when it is thus fixed, put a ſmall cord or line into the hole, and twiſting it about, your looking-glaſs is finiſhed. You muſt place it between the two nets, near the middle of them, and carry the line to the edge; ſo that pulling the line, you may make the looking glaſs play in and out, as children do a whirligig: keep it always turning, that the twinkling of the glaſs againſt the ſun may provoke the larks to come and view it. The right ſeaſon for this ſport begins in *September*, and eſpecially white froſty mornings.

Some catch larks with a clap-net.

Theſe birds, when it freezes hard, go in great flocks, and fly from one field to another, in queſt of their food; and they firſt fly low, near the ground, and alight where they ſee ſome others: now in order to take them, you muſt provide yourſelf with three ſticks, like to thoſe here repreſented at D, E, F, five or ſix feet long, very ſtraight, and ſtrong enough, with a notch at each end: at the end of which faſten on one ſide a ſtick as at E, a foot and a half in length, and on the other ſide a ſmall peg two or three inches long; one of theſe two poles or ſticks muſt have two ſticks tied to the end, oppoſite to one another; and there muſt be two other ſmall ſticks or pegs faſtened to the ſide of each ſtake, as you ſee deſcribed in the figure marked G, L, X, I, H. The ſtick I, X, muſt have two notches at its ends; one at X, there to place the net at the end I, where the two ſticks G, H, are faſtened, and to the ſide of each ſtick the pegs L, I; and when you intend to catch larks, three or four men muſt go from one field to another, which muſt be pretty even and not hilly, and pitch your nets; the three ſticks muſt be faſtened together at both ends

ends and in the middle, and place the ſtaff with the two pegs in the middle, that the net may the more eaſily and readily turn, being guided by this ſtaff, which will turn between the two ſticks, which you are to join in the ground: the two other ends muſt be oppoſite to one another, inſomuch that the four ſticks will be found to be fixed in a ſtraight line; and that the cord at the bottom of the net may be very ſtiff, get a ſtrong cord, 3, 5, twelve feet long, one end of which you are to faſten to the ſtick 3, and the other at that at 5, which you muſt pitch in the ground over-againſt thoſe at 4, 1, 6: in like manner faſten another cord, ten feet long to the end of the ſtick or ſtaff 7, with a peg 8 at the other end, which fix in the ground to the right of the others: pull it with all your ſtrength, that the upper cord or line may be as ſtiff as that below; you muſt have another cord, ten or twelve fathoms long, which put on a pully, and at one end faſten it to the ſtick 7, and let the others be tied to the ſtake behind the ſtand, which ſhould be made of ſtubble put round ſome ſprigs or ſmall branches of wood; the pully muſt be held at the place marked 10, fifteen feet diſtant from the net, with a cord tied to the ſtake 11, ſo that the ſpace between the pully and it's ſtake muſt be a foot and a half long, and the pully advanced to within two feet in the inſide of the bottom of the net, that it may turn more expeditiouſly.

The whole being ſet in order, let the perſon take his ſtand; and let the other perſons poſt themſelves in ſuch a manner, that the game 19, 20, may as it were, be between them three: I ſuppoſe one of them advances from the place marked A, the other from B, and third from C; but thoſe at A and B, muſt move more forward than the middlemoſt; and thus the larks ſeeing themſelves hemmed in, as it were on all ſides, and being obliged to fly ſtrait over the nets; to forward them the more therein, take a good long packthread, tie one end of it to the point of the ſmall peg 9, and a foot and a half, or two feet high, fixed upright in the ground, within two feet of the nets, and paſs it from thence over a ſmall forked ſtick, cut of the ſame height as the other ſtick or peg, and fix it likewiſe in the ground; the other end of the packthread muſt be conveyed to the ſtand. To this packthread, tie three or four birds, 15, 16, 17, 18, by the legs, with other packthreads, a foot and a half long; and when the perſon in the ſtand ſees the flock of larks fly, he muſt ſtir the packthread a little, and when thoſe at large perceive it, they will make directly thither, and then is his time to hold the cord in both his hands and draw it. Thoſe live birds tied to the packthreads, are termed calls.

Country people, when they are not provided with nets, make uſe of ſprings, and ſuch like things, to take larks with.

When the weather is very cold, they obſerve thoſe places wherein they delight moſt, and to allure them the more thither, they ſtrew ſome oats in the place where they lay their ſprings, putting on ſeveral ridges of earth, near one another, packthreads of about four or five fathom, to which they faſten ſeveral ſprings or collars, made of horſe-hair, and thereby take great numbers of them.

LASK, LAX, OR LOOSENESS [in Horſes], is a diſtemper occaſioned by ſuch a weakneſs of the ſtomach, that their food paſſes through their guts without any alteration, which is a very dangerous caſe, and frequently fatal to them. It alſo ſometimes proceeds from the corruption of humours, either collected in the ſtomach, or thrown upon it from other parts.

The external cauſes, are eating too much provender, feeding upon mouldy or rotten hay, frozen graſs, rye, ſtraw, and other unwholeſome fodder, drinking very cold water, or immediately after the eating of a great quantity of oats, immoderate fatigue, exceſſive fatneſs, and ſometimes want of exerciſe.

If the excrements voided, boil and work upon the ground, it is a ſign that the diſtemper proceeds from over-heated choler, which is ſeldom dangerous, nay it is ſometimes profitable.

Again, if the ordure be white, it is a ſign of crude, cold humours: if watery, it betokens a great weakneſs in the ſtomach.

Laſks occaſioned by drinking cold water in ſummer, or melted ſnow, or by eating tender graſs, or other looſening things, are not to be regarded; but ſuch as proceed without any manifeſt outward cauſe, are not by any means to be neglected.

For the cure. If the excrements appear mixed with ſmall pieces or ſcrapings of the guts, you ought immediately to endeavour to prevent a deadly ulcer in thoſe parts, by giving him two or three times a day, a pint of cooling, ſoftening decoction, made as follows, *viz.* two ounces of barley, two ounces of marſh-mallow roots, and one ounce of the powder of ſal prunella, boiled in three quarts of water to one quart.

If the diſtemper is cauſed by phlegm, you may make uſe of cordial powders or pills, and other hot medicines, proper for ſtrengthening the ſtomach and relaxed parts.

Sometimes a laſk is a reaſonable effort of nature, to free itſelf from a troubleſome load of humours; but if it continues longer than three days, with loſs of appetite, it ought to be checked, for horſes are ſometimes foundered by its long continuance.

In this caſe, give the horſe for his food, bran moiſtened with claret, or barley parched and ground, and the beſt hay; but oats are in no wiſe proper.

A horſe is in the beſt order that only dungs once, or, at the moſt, twice in ten miles riding. Young and fiery horſes are often very lax; but this weakneſs generally leaves them by the time they are ſeven or eight years old, if they had been properly fed and but gently exerciſed. The fiery ſort ſometimes continues to purge after any extraordinary exerciſe, for their digeſtive powers are, for the moſt part, but weak; and alſo eat ſo ſpeedily, that they ſwallow their oats almoſt whole, and eject them in the ſame ſtate.

When a purging is habitual, or happens by accident, until the horſe ſeems to looſe ſtrength or fleſh, or both, it is not neceſſary to give him any aſtringent medicines, as the diſcharge may be only a ſalutary effort of nature to throw off what is either redundant or offenſive; a gentle

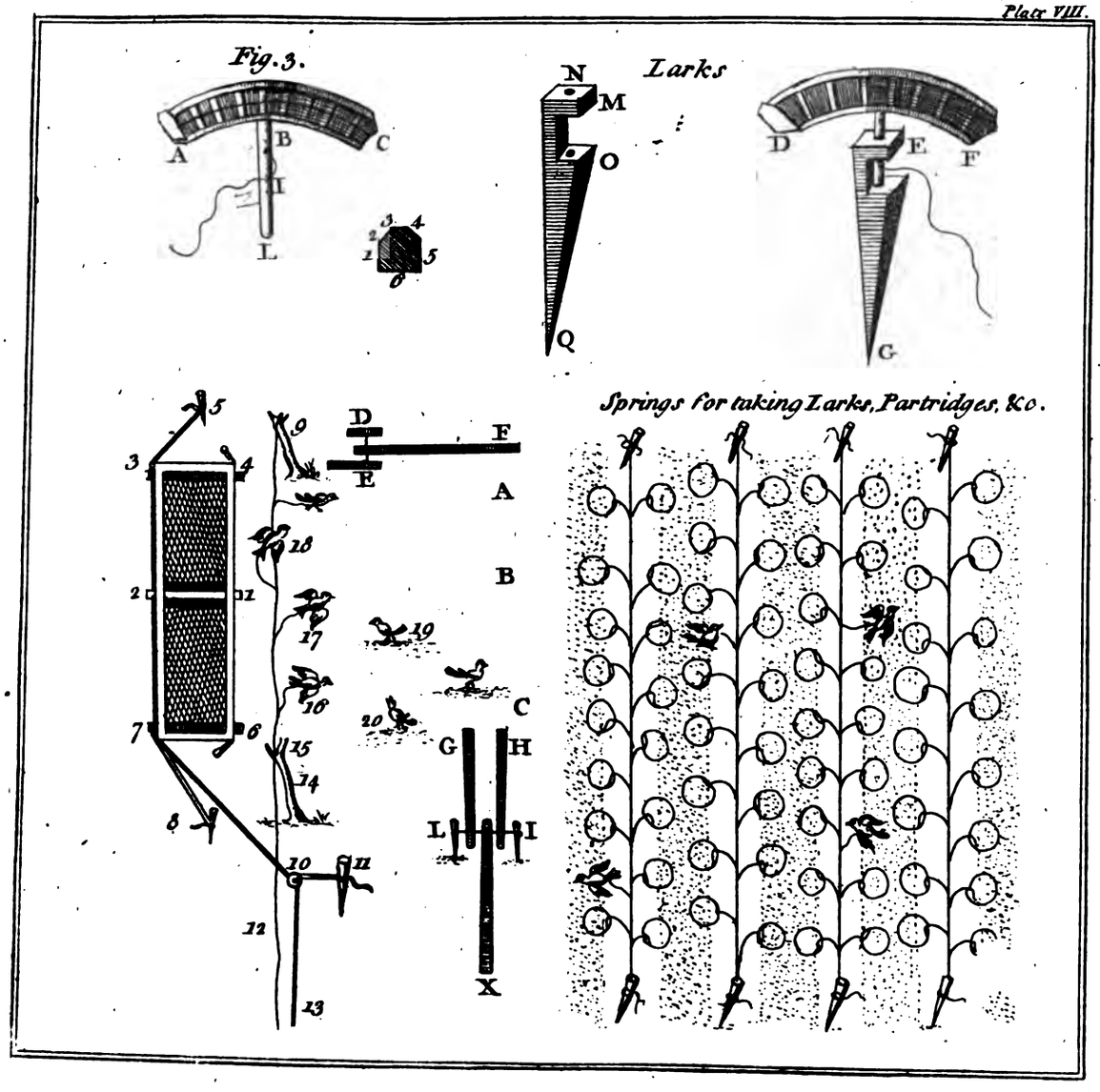
Fig. 3.
A
B
C
I
L
1
2
3
4
5
6
Larks
N
M
O
Q
D
E
F
G
Springs for taking Larks, Partridges, &c.
A
B
C
G
H
L
I
X

gentle purge may be given, and a few mashes of bran; which, perhaps, by assisting nature, may perfect a cure: but if the disease continues, and the horse loses flesh, grows dispirited and feeble, recourse must be had to astringents: when the dung is like that of a cow, but the vigour of the horse not impaired, he is said to have a lax; but when the strength and flesh fails he is said to have a scouring or purging.

When a scouring comes on at the latter end of any obstinate and tedious disease, as low, putrid fevers, farcy, &c. they are usually the forerunners of death, particularly if they are accompanied with a disagreeable discharge at the same time from the nose.

If the scouring proceeds from cold, and there is some degree of fever, according to the strength of the horse and the violence of the heat, bleed; then give the following:

Take of rhubarb, half an ounce, or six drachms; lenitive electuary, two ounces; mix, and make a ball.

Repeat this, every two or three days, until the fever abates: and betwixt the days of giving the rhubarb, give the following medicine once a day.

Astringent Decoction.

Take oak bark, grosly powdered: boil it in a pint of water to the consumption of one-third, then pour off the liquor for one dose:

Except the fever and purging increased together, great care should be taken not to check the purging lest the fever be increased thereby.

If little or no fever attends, after bleeding, give the following solutive ball:

Take of aloes half an ounce; diapente, one ounce; treacle enough to make a ball: repeat this once a week, and if there is much griping and distention from wind, the restringent clyster will be necessary.

It may be proper to remind the reader, that in these complaints, clysters should be small in quantity; and if the disease is violent, they should be repeated as often as they come away. If there is great pain, forty drops of liquid laudanum may be added to one of the clysters, and repeated as the urgency thereof requires.

If the scouring still continues without relief, give two drachms of cerated glass of antimony, mixed with one ounce of diacodium, or two ounces of cordial ball

Alum, Armenian bole, or other astringent and absorbent medicines, are given to one ounce, once or twice a day, but usually one or two doses will answer the end.

If the cause is a weak digestion, which is known by the food passing nearly in the same state in which the stomach received it: the dung being very soft and pale; the appetite small, and the horse very lean: beside gentle exercise and dry food, such as the best hay, beans in larger quantities than are usually given, and those so moistened that the horse need not drink much, give the following stomach-purge, and repeat it as occasion may require.

Take of aloes, half an ounce; cream of tartar and myrrh, each half an ounce; treacle enough to make a ball: and on the days in which this purge is not operating, give the following

Stomach Drink.

Take of oak-bark, bruised, half a pound; Gentian root, sliced, one pound; ginger, bruised, two ounces; infuse them in a gallon of ale three or four days, and give half or three quarters of a pint every night and morning.

When a viscid matter, obstructing the mouths of the lacteals, gives rise to this disorder, a summer's grass, or, which is still better, the salt marsh, will effect a cure: where these cannot be obtained, the stomach purge before directed may be given once a week.

In any of the above cases, where there is a discharge of sharp, slimy matter, with severe griping, avoid oily and greasy things, but give the following in clysters, *viz.* Tripe-liquor, or very thin starch; either of these may be given to three or four pints at a time, and liquid laudanum, to the quantity of forty or sixty drops, may be added to one of the clysters, to moderate the pains, and repeated as may seem needful.

When blood appears with the excrement, it is called the bloody flux: in which case, if there is great pain, and frequent motions for a discharge, there is also a great danger. In this case give frequent clysters of tripe-broth, or thin starch, with thirty or forty drops of liquid laudanum in each, until the pain is abated in some measure; and give the same medicines as above directed for the more obstinate scourings, particularly the ball made with cerated glass of antimony, and cordial ball. For common drink give the following:

Boil a pound of burnt hartshorn in ten pints of water to a gallon, at the latter end of the boiling, add to it four ounces of gum arabic, continually stirring until the gum is dissolved, then remove the whole from the fire.

Mr. Lawrence speaking of the *Lax or Scouring, or Diarrhæa*, says, as follows: There is a nervous diarrhæa in horses, which, those subject to it are generally young, and of a weak and irritable habit: it attends them only whilst in work, when they seldom carry any flesh; the complaint is out of the reach of medicine, but will sometimes subside spontaneously, after a few years use. These delicate horses require great care and dietetic attention to render them of much use. Strong nutriment, but in moderate quantities at a time. Good old dried beans in their oats, lucern or the hardest and best upland hay; rice mashes, carrots, occasional runs at grass.

The scouring in horses which requires and admits a remedy, may arise from various causes: from an acrimonious ichor in the stomach and intestines, from the fermentation and sudden dissolution of excrement long retained, from the solution of perspirable matter thrown upon the lower bowels, on occasion of drinking cold water when hot, or other causes of cold, from colliquation of the fatty substance of the body in being over heated by excessive labour, especially when out of condition; or lastly, diarrhæa may be a concomitant, or termination of disease.

As to the cure, it is a general rule never to exhibit astringents, or to attempt to stop a flux in the commencement, since the discharge may be merely an effort of nature to relieve herself from a morbid load. Gentle laxatives are rather indicated, and rhubarb from its cardiac and sub-astringent quality, is the sheet-anchor in this case. In common cases, and indeed generally, astringents are by no means necessary, the effect and proper cause ceasing together; but should the purging continue until the healthy humours begin to be evacuated, and the animal become weak in consequence, no time ought to be lost in attempting to stay the flux. SOLLEYSEL fixes the period of waiting to three days, when he says the horse will begin to lose his appetite.

The Laxative and Sub-astringent Ball or Drink. Take one ounce fine Turkey-rhubarb, fresh powdered, lenitive electuary, two ounces; ginger finely powdered, two drachms; ball with sifted oat-flour, or make a drink with gruel. To be given every other day, three times. The night after the operation of each dose, the following drink may be given warm, if circumstances appear to require it. Diascordium half an ounce to an ounce in either a tea made of mint, sage, chamomile, or dried roses; and ale, or gruel.

But should the disease turn out too powerful for these remedies, and the scouring continue with griping pains, loss of appetite, heaving at the flanks, and fever, an efficacious restringent course must be adapted, both in the medicines given at the mouth, and frequent clysters.

Restringent Clyster. Oak-bark four ounces; tormentil-root, two ounces; chamomile, two handfuls; burnt hartshorn, three ounces; boil in three quarts forge water to two; strain off, and add two ounces diascordium; four ounces of starch or ground-rice; and half a drachm of opium. This quantity may serve once or twice according to circumstances. Repeat once a day.

The *Drink*, to be exhibited daily. Take anniseeds, carraways, and lesser cardamoms, one ounce each; juniper berries, four ounces; bruise and put them into five pints mint water, adding diascordium, one ounce; boil to three pints; strain, and add good old port half a pint, or strong beer, sweeten with treacle. In case of much pain and twitching in the bowels, two spoonfuls of laudanum may be added.

The diascordium, or species of scordium, is composed of such a variety of cordial, aromatic, and astringent ingredients, that it saves trouble, and is of equal efficacy with the mode of prescribing a number of various articles of similar intent: it may be given in balls with the seeds, compounded with prepared chalk and syrup of poppies. Mashes of malt and rice mixed, should be allowed, water in small quantities at a time, and mixed with rice gruel, or solution of gum arabic.

In case of a flux of blood with the excrement, BARTLET prescribes the following drink. Diascordium and French-bole, one ounce each; ipecacuhan powdered, two drachms; opium half a drachm; dissolve in a pint of warm ale, or port and water, and give it twice a day. Perhaps it would be better to begin with half the quantity of diascordium. In case of a lientery, or voiding chyle with the excrement, or the aliment unchanged, bark and bitters must be brought forward in aid of the other medicines. Or, The following infusion from BRACKEN. Take zedoary and gentian half an ounce each; orange peel, and WINTER's bark, one ounce each; fine myrrh in powder, half an ounce; flowers of chamomile and lesser centaury, each half a handful; mace and cloves two drachms each. Beat all grossly together, and infuse two days in a gallon of good port, or strong beer, cold. Dose, one pint every morning, milk-warm, adding two ounces syrup of dried roses to every dose.

LASSITUDE, OR WEARINESS IN HORSES, may proceed either from heat or cold; either when he has a retention of urine, has drank after being heated, or has been put to his utmost at once after long rest; the remedy for which is rest. You may also give him hog's suet mixed with wine.

If the lassitude proceeds from cold, or be in cold weather, make use of fomentations, and anoint his head and back-bone with ointment, in hot water or warm wine.

If he has retained his urine, use the same medicines, or rub his head and reins with hot oil, mixed with hog's grease or hog's blood, and give it him to drink with wine.

LAUND, } [in a park], plain, untilled ground.
LAWN, }

LAWING OF DOGS, a cutting out the balls, or the three claws of his fore-feet. *See To* EXPEDIATE.

LAX, *see* LASK.

LEAD, a horse going upon a straight line, always leads and cuts the way with his right foot.

The Duke of *Newcastle* was the first that made use of the term, and indeed it is very expressive. *See* GALLOP UNITED *and* GALLOP FALSE.

LEAD FOR ANGLING. To lead your line, do it with a shot cloven, and then closed exactly on it, not above two on a line, and about two inches distant from each other, and the lowest seven or eight inches from the hook; but for the running line, either in clear or muddy water, nine or ten inches, and in a sandy bottom full of wood, shape your lead in the diamond fashion, or that of a barley-corn or oval, and bring the ends very close and smooth to the line; but make it black, or the brightness will scare the fish. *See* ANGLING.

LEADING OF LINES. The small round pellet or lead-shot is best, especially for stoney rivers, and the running line.

LEAM, } [among Hunters] a line to hold a dog in,
LIAM, } otherwise called a leash.

LEAP, an air of a step, and a leg. *See* STEP.

LEAPING-HORSE, one that works in the high manege, a horse that makes his leaps in order, with obedience, between two pillars, upon a straight line, in volts, caprioles, balotades, or croupades.

Use, which in most things has a sovereign sway, excludes a gallop *a terra a terra*, and corvets, from the number of leaps, because the horse does not rise so very high in these.

Each leap of a leaping-horse ought to gain or make not above a foot and a half of ground forwards.

LEASH

LEASH, } a ſmall, long thong of leather, by which
LEASE, } a falconer holds his hawk, twiſting it about his fingers. Alſo a line to hold in a hunting-dog.

LEASH OF GREYHOUNDS, FOXES, HARES, *&c.* or three of any kind of game; the term being now reſtrained to that number, which was formerly double, or perhaps indefinite.

LEATHER-MOUTHED. Leather mouthed fiſh are ſuch as have their teeth in their throats; as the chub, barbel, gudgeon, carp, *&c.*

LEEK-HEADS, a kind of wart, that come about a horſe's paſterns or paſtern-joints; they are higher than the ſkin, about half the thickneſs of one's fingers, throw out filthy ſtinking ſtuff, ſpoil the leg, and are very difficult to cure.

Thoſe that ariſe in the paſterns are laid beneath the long hair of the fetlocks, and are ſome of them ſo extremely malignant, that they make the hair fall off all round them, and they themſelves grow up like walnuts.

There are others again more flat, and not ſo much raiſed above the ſkin, yet are more dangerous than thoſe that are the biggeſt and moſt elevated.

Theſe leek-heads are eaſily diſcovered, being many mattery warts that touch one another, and without hair: they ſend forth much matter for the moſt part, but may be dried up for a time.

LEDGER-BAIT, a bait that is fixed or made to reſt in one place, when you ſhall be abſent. It is beſt to be a living one, a fiſh or frog. Of fiſh, a roach or dace is beſt. Cut off the fin on the back, and make an inciſion with a ſharp knife, between the head and the fin on the back, and put the arming-wire of your hook into it, and carrying it along his back, unto the tail, betwixt the ſkin and the body, draw out your arming at another ſcar near the tail, and then tie him about it with thread.

LEGS OF THE HORSEMAN, the action of the horſeman's legs given ſeaſonably, and with judgment, is an aid that conſiſts with approaching more or leſs with the calf to the flank of the horſe, and in bearing it more or leſs off, as there is occaſion.

This aid a horſeman ought to give very gently, in order to animate a horſe, for in ſtretching the ham, he makes the horſe dread the ſpur, and this fear has as much effect as the ſpur itſelf.

LEGS OF A HORSE ſhould have a due proportion of their length to that of the body: the fore-legs are ſubject to many infirmities, as being the parts that ſuffer moſt, and are alſo commonly the ſmalleſt and weakeſt.

There are ſeveral marks of bad legs, *viz.* if they appear altogether ſtraight, or as if they were all of one piece.

A horſe is ſaid to be ſtraight upon his members, when from the knee to the fore part of the coronet, the knees, ſhank and coronet, deſcend in a ſtraight or plumb-line, and that the paſtern-joint appears more, or at leaſt as much advanced as the reſt of the leg; ſuch legs are like thoſe of a goat, making a horſe apt to ſtumble and fall; ſo that in time the paſtern is thruſt quite forward, out of it's place, and the horſe becomes lame.

Horſes which are ſtraight upon their members, are quite contrary to thoſe that are long jointed; that is, whoſe paſterns are ſo long and flexible, that the horſe in walking almoſt touches the ground with them.

This is a greater imperfection than the former, becauſe ſome remedy may be applied to them, but there can be none for this; beſides, it is a ſign of little or no ſtrength, and ſuch horſes are not fit for any fatigue or toil.

Some horſes, though they be long jointed, yet do not bend their paſterns in walking, being ſomewhat long; yet if they are not too flexible, ſuch a horſe will gallop and run with a great deal more eaſe to his rider, than if he were ſhort jointed.

Theſe are the only horſes for perſons of quality, who ſeek after their own eaſe and pleaſure; and indeed thoſe horſes may be compared to coaches with ſprings, which render them infinitely more eaſy than thoſe without them.

Legs in a ſtraight line is an imperfection in a horſe, where his legs from the knee to the coronet appear in a ſtraight line as the horſe ſtands with them in their natural poſition.

The remedy is ſhoeing; in doing which the heels muſt be taken down almoſt to the quick, without hollowing the quarters; and if, when this has been done, the leg does not fall back enough, but that the horſe ſtill carries his paſtern-joint too far forward, then the ſhoe muſt be ſo made as to go beyond or exceed the toe, about the breadth of half a finger; and alſo it muſt be thicker in that than in any other part; and in the mean time, anoint the back ſinews of his legs with the ointment of *Montpellier;* and theſe things will reduce them to their proper poſition.

Of the four legs, the two before have ſeveral parts, each of which has a peculiar name; ſo that by the name of fore-leg, we commonly underſtand that part of the fore-quarters that extends from the hough to the paſtern-joint, and call it the ſhank. The part that correſponds with it in the hinder quarters we call the inſtep.

But in common diſcourſe, we confound the fore and hind quarters, and without any diſtinction, ſay, the fore leg of a horſe.

A horſe is ſaid to want the fifth leg; when he is tired, and bearing upon the bridle lies heavy on the horſeman's hand.

There are various diſeaſes that ariſe from the greaſe, ſuch as the ſcratches, rat-tails, crown-ſcab, warts, mules; theſe, are generally concomitants, or different appearances of the greaſe, and conſequently demand the ſame methods of prevention and cure. Scratches or crepanches, are long ſcabby chaps, or clefts, either dry, or with a ſmall fetid diſcharge, ſituated upon the hinder-legs, between the fetlock and the hock. Rat-tails, ſo denominated from their appearance, are excreſcences of the hair and integument, upon the paſtern and ſhank, either moiſt or dry; the crown-ſcab is a defluxion of the greaſe upon the coronary ring. Warts and mules

mules breed upon the heels; the latter so named from an *Italian* word, is, a kind of kibe, or chilblain.

Scratches and rat-tails are often occasioned by neglect, and the horse standing in hot dung and filth. Begin the cure by getting off all the scurf, and making them raw, or if necessary, laying them open, or paring off with a knife. Emollient and suppling applications may be wanted, of which variety has been prescribed, as also of those of different intent. The cure of a crown-scab is sometimes a matter of considerable difficulty, for in a bad case, the milder applications have small effect, and the more powerful, as oil of vitriol, and such as are in common use, injure the coronet, and endanger the loss of hoof. Soak the parts once or twice a day, with the tobacco infusion, and the tobacco itself may be bound on as a charge. Or, a charge of marsh-mallows and yellow basilicon, spread on tow. Touch with ægyptiacum and brandy; camphorated spirits, and as much sal ammoniac as it will dissolve; or the spirit of nitre and sublimate as before. Purges, &c.

Warts. Extirpate them with the knife, and apply a styptic of vitriolic acid. When the bleeding is perfectly stopped, touch the roots either with the actual or potential cautery. If the wound be large and sore after the escar is sluffed off, dress with the Burgundy-pitch plaster, if otherwise, with the diachylon only.

Mallenders and Sallenders. Foul and gourdy-legged horses are most subject to them, and in such, it is not always safe to repel the discharge without purging or alterative medicines. Clip the hair close, and wash often with a strong lather of soap and water warm. Stale urine. Dress with strong mercurial unction, spread on tow. Or, frequent dressings with Burgundy-pitch, common frankincense, tar, diachylon, and quicksilver, well rubbed down with Venice-turpentine.

The broken Knee. Wash the wound clean from small specks of gravel or earth, with a linen rag and warm soap suds; wipe dry, and apply brandy. Stale chamberlye and salt, frequently applied. Friar's balsam has healed broken knees very speedily. Or, bind upon the parts tow, dipped in tincture of myrrh and brandy. It may be necessary to poultice, and afterwards heal with wound-ointment. The knees being swelled, bathe with brandy and vinegar warm. It is said that pigeon's dung, honey, and goose-grease mixed, will cause the hair to grow speedily; and perhaps a piece of sheet-lead, bandaged upon the part, might occasion the hair to grow smooth and even with the old. *See* FEET OF A HORSE.

LEGS, SWELLING OF, IN HORSES. The cause of the swelling in the legs comes through cold humours settling therein, or over-much riding in foul or dirty ways, over-heats, or over-strains, or by molten grease falling down into the legs.

Let blood in the most convenient veins, as near as may be to the swelling, to take away the corrupt blood. Then,

Take the lees of white-wine, or rhenish-wine, half a pint; chamomile, half a handful; cummin-seeds, half an ounce; wheat-flour, two handfuls; boil them all together, adding in the boiling half a pint of verjuice, and so lay them hot as a poultice to the place grieved, renewing it till you find it draws the swelling to a head: which being done, take shoemakers's wax, an ounce; the like quantity of virgins wax; half an ounce of bole ammoniac, and half a pint of olive-oil; the yolks of two eggs, and a quartern of honey: beat these well together over a gentle fire, till you perceive them well incorporated into the thickness of a salve; then, spreading part of it upon sheep's leather, apply it plaster-wise, till the corruption, by often renewing, be drawn away: then wash the place with balm-water, and heal it up with hog's grease and honey incorporated over a gentle fire.

LENGTH. To passage a horse upon his own length, is to make him go round in two treads, at a walk or trot, upon a spot of ground so narrow, that the horse's haunches being in the centre of the volt, his own length is about the semi-diameter of the volt, the horse still working behind the two heels, without putting his croup, or going at last, faster or slower than at first.

LEPROSY IN A HORSE. This grievance, or dangerous malady, befals a horse by extraordinary riding, and suffering him to cool, and consequently surfeit; or from the rankness of blood, which produces evil humours, which, not being timely let out, force their way in botches and dry sorrances, which upon dressing must be rubbed off, to prepare the way for the ointment.

Take realgar, otherwise called arsenic, and hog's lard well tried; incorporate them into an ointment over a gentle fire; and, having drawn the horse's head up straight to the rack, anoint the place with a feather, and suffer it for the space of two hours to soak in; and after that boil the roots of burdock in chamberlye, and wash with it the ointment clean away: which done, give the horse meat of the best to hearten and encourage him to endurance; and so proceed to do every other day for six days successively.

LESSES (with Hunters) the dung of a wild boar, bear, or wolf.

LESSON, is a word used for the instruction of both the horse and the scholar.

LESSONS FOR A HORSE. When your horse will receive you to and from his back gently, trot forward willingly, and stand still obediently, then for what purpose soever he is intended, these general lessons may serve him.

With a large ring, that is at least fifty paces in circumference, labour him in some gravelly and sandy place, where his footsteps are discernible, and having trod it about three or four times on the right hand, rest and cherish: afterwards changing the hand, do as much on the left, then rest and cherish; change again, and do as much on the right; ever observing, upon every stop, to make him retire and go back a step or two: continue this till he trot his ring on what hand you please, changing within it in form of the capital *Roman* S; and does it readily and willingly: then teach him to gallop them as he trotted them, and that also with true foot, lofty carriage, and brave rein, ever observing when he gallops to the

the right hand, to lead with his left fore foot; and when he gallops to the left-hand, to lead with the right fore-foot.

Stopping; for when you come to a place of stop, or would stop, by a sudden drawing in of the bridle-hand, somewhat hard and sharp, make him stop close, firm, and straight, in an even line; and if he err in any thing, put him to it again, and leave him not till you have made him understand his error and amend it.

Advancing; with which if you accompany the aforementioned stop a little from the ground it will be better, and may be done by laying the calves of your legs to his sides, and shaking the rod over him as he stops: and if he does not understand it at first, yet by continuance and labouring him therein, he will soon attain to it, especially if you do not forget to cherish him, when he shews the least token of apprehending you.

Retiring is another lesson, after stopping and advancing; and this motion must be both cherished and increased, making it so familiar to him, that none may be more perfect; neither is he to retire in a confused manner, but with a brave rein, a constant head, and a direct line; nor should he draw or sweep his legs one after another, but take them clean, nimbly, and easily, as when he trots forward.

LEVERET. A young hare, so called in the first year of her age.

LEVINER. } A hound of a very singular scent,
LYEMER. } and incomparable swiftness: this is as it were a middle kind, betwixt a harrier and a greyhound, as well for his kind, as the form or shape of his body. This dog, for the excellency of his condition, viz. his smelling and swift running, followeth the game with more eagerness, and taketh the prey with great quickness.

LIBERTY OF THE TONGUE, is a void space left in the middle of a bitt, to give place to the tongue of a horse, made by the bitt's arching in the middle, and rising towards the roof of the mouth.

The various forms of the liberty give name to the bitt.

Hence we say a scatch-mouth, a Pignatelle, *i. e.* with the liberty of *Pignatelle*'s fashion; a cannon-mouth, with the liberty like a pigeon's neck.

LICE, IN CATTLE, to destroy.

Anoint with oil of turpentine or linseed oil, and flour of brimstone. And,

To kill worms and maggots. Get black soap, or for want of it, other soap; mix it with tar or tar-water, and anoint the place: this will not only kill the present, but even prevent the future from breeding in sore places.

LIGHT HORSE, is a swift nimble runner.

We likewise call a horse light that is well made, though he is neither swift nor active; for in this last expression we consider only the shape and make of a horse, without regard to his qualities.

LIGHT UPON THE HAND. A horse is said to be such, that has a good tractable mouth, and does not rest too heavy upon the bitt.

Your horses that have a thin fore hand, *i. e.* small shoulders, are commonly light upon the hand.

We call a coach-horse light, when he stirs nimbly, and dreads the whip; or, when he has a light trot.

All your light coach-horses are good, and a hard heavy coach-horse, that takes the lashing easily, is good for nothing. LIGHT HAND. *See* HAND.

LIGHTEN. To lighten a horse, to make a horse light in the fore-hand, is to make him free and lighter in the fore-hand than behind.

If you would make your horse light, you ought to find him always disposed to a gallop when you put him to a trot, and after galloping some time, put him back to a trot again.

LIGHT-BELLIED HORSE, is one that commonly has flat, narrow, and contracted sides, which makes the flank turn up like that of a greyhound.

Such a horse has but a little flank, he is light-bellied, he travels and feeds but little, because he has too much mettle.

LIGS IN A HORSE, are little pushes, wheals or bladders, within the lips of a horse, and are cured by bruising wormwood and skirwort in a mortar, with a little honey, to anoint the sores with.

LIME-BUSH. A device to catch birds with; which is performed in this manner. Cut down an arm or bough of any bushy tree, whose twigs are thick and long, yet smooth and straight, then neatly cut off all the superfluous twigs, and having your strong birdlime well mixed, wrought together with capon's or goose-grease, warm and fit the work by daubing over of an equal thickness the twigs or branches that are left within four fingers of the bottom, but the body and arms must be free; place your bush, thus prepared, on some quickset or dead hedge for a spring season; near a town's-end, a farm-yard, &c. in summer and harvest, in groves, in hedges, or corn fields, orchards, flax, halm, or rape-land; and in winter, about barns, stables, corn-fields, and stacks of corn, where chaff and grain are scattered up and down.

The bush being so set, place yourself in some convenient station, where you may lie concealed, and near the bush you are to have about half a dozen stales fixed, whose chirping and singing will entice others thereto. You should also be provided with bird-calls of several sorts. The bush may also be used in taking field-fares, by fastening it upon a tree, and having fixed some stales, beat the adjacent grounds to raise them, and when they espy the stales, they will light on the tree and bush for company.

But for taking pheasants with these lime-bushes and rods, take your call and use it, keep yourself secret, and in one place, till you have enticed them about you, as they are taken by the rods on the ground, so you will surprize them with your bushes; for being scared from below, they will take perch and see what becomes of their fellows, and when one is limed, by her striving and struggling, and the rest coming and gazing to see what is befallen her, they will be in danger of being likewise limed. It is requisite to number the lime-rods, for when you

you have gathered up all the pheasants that are caught, and find rods wanting, you may conclude that some pheasants are run with them into the bushes; you must hunt them out with a good spaniel.

LIME-TWIGS. Small lime-twigs, about three or four inches long, may be laid in places where the birds haunt, or stuck on the tops of hemp-cocks, or wheat-sheaves; or little boughs may be stuck among peas, which the small-birds will light upon; by which means the number of these destroyers of corn, grain, seed, *&c.* may be lessened.

A stale of one or two living night-bats is proper to draw them to the snare, but an owl is much better. As for field-fares, thrushes, and the like, which in winter-time usually fly in great flocks, they are easily catched, by lining two or three large boughs, to be fixed on the top of some tall tree, placing in them two or three dried stales of that kind; the adjacent fields where those birds feed may be beaten, and they will in great flights take to the tree where the stales are.

To take great fowl with lime-twigs: get plenty of rods, or long, small, and straight grown twigs, which are light, and apt to ply to and fro.

Lime the upper part of these twigs, holding the bird-lime before the fire, the easier to besmear them.

Having a knowledge of the place where these fowl resort morning and evening, observe (before day for the morning-flight, and before sun-set for the evening-flight) to plant your lime-twigs at the haunt of these fowl, staking down one of the same alive, which you have caught before for that purpose.

Prick down your twigs in rows, a foot distant one from another, round about the stale, allowing him room and liberty to flutter to and fro, covering all the place of their haunt, so that there shall be no room left, but they must of necessity pitch on the lime-twigs.

Let the twigs be stuck in the ground sloping, with their tops bending into the wind, about a foot, or some thing more, above the ground. It will likewise be best to prick the rods so as to cross one another, that is, one point into the wind, and another against the wind, by which means the fowls will be entangled which way soever they go.

Also place a stale at some distance from the lime-twigs, and fasten small strings to it, which, upon the sight of any fowl, you are to pull, to make the stale flutter, which will allure them down again.

When you see any taken, you are not to run instantly and take them up, if at the same time you see any fowl in the air, for their fluttering will induce others to swoop in among them.

It will also be useful to have with you a well-taught spaniel, for the retaking of such fowl, (as it is common) which will flutter away with the lime-twigs about them.

If you have a mind to use the twigs for the taking of smaller wild fowl, and such as frequent the water only, then you must fit them in length to the depth of the water, and your rods must be limed with the strong water bird-lime, such as will not be injured by the wet.

Stick these rods in the water, after the same manner as those upon land, that part of the rods that are limed above the water; and also stake down a live stale, as a mallard, widgeon, or teal, here and there amongst the rods. This may be done in any shallow plash or fen.

It will not be necessary for you to attend continually on your rods, but only to come three times a day to see what are taken, *viz.* early in the morning, at noon, and late in the evening; but bring your water-dog with you, for if you find that any of your rods are missing, you may conclude that some fowls being fastened to them, are crept into some hole, bush, or hedge, by the river-side, and the dog will be very necessary to find them out.

Do not beat one haunt too much, but when you find their numbers fail, find out another haunt; and in about three weeks time the first will be as good as before.

LIMER, } The same as blood-hound, a great
LIMEHOUND, } dog to hunt the wild boar.

LINES FOR FISHING. To make them after the best manner, let the hair be round, and twist it even, for that strengthens the line; and see that it be, as near as you can, of an equal bigness: lay them in water for a quarter of an hour, by which means you will find which of the hairs shrinks, and then twist them over again.

Some mix silk in the twisting, others again disapprove of this, but approve of a line made of all silk; also of a line made all of the smallest lutestring, as very near as good, but it will soon rot in the water.

When you have prepared as many links as will suffice to make your line long enough, you must then tie them together in a water knot, *Dutch* knot, or weaver's knot. Then cut off the short ends about the breadth of a straw from the knot, and thus the line will be even and fit for fishing. You may make the top of your line, and indeed all of it, except two yards next the hook, of a coarser hair. Always let the top of your line, whether in muddy or clear waters, be made of white hair, because the motion of the line, when the fish bite, will be far more discernible. Never strain your hairs before they are made into a line, for then they will shrink when used.

To make the line handsome, and to twist the hair even and neat, gives it strength: for if one hair is long, and another short, the short one, receiving no strength from the long one, consequently breaks; and then the other, as too weak, breaks also. Therefore twist them slowly, and in twisting, keep them from entangling, which hinders their right plaiting or bedding together; twist them neither too hard nor too slack, but even, so as they may twine one with another, and no more. When you have tied your lengths together with the water-knot, cut off the short ends about the breadth of a straw from the knot, that it may not undo in the using.

Do not arm, fix, or whip hooks to any line, either for ground or fly angling, that consists of more than three or four links, at the most, the top of the uppermost link having a small loop, or water-noose, you may fix it to any line, and as easily remove it; there being another water-noose at the bottom of your line.

To angle for trouts, graylings, and salmon smelts, with

with the dub fly; let the two first links next the hook be but of one hair a piece: but the hair must be strong, and of the thick ends only, and chosen for the purpose. The next two links of two hairs, and next to these one of three hairs; at the top of which have a water-noose, or loop to put your line to; which lowermost link consists of three hairs, and has another water-noose at bottom, or hook-link to fix your fly to. Then let two of the next links of your line be four hairs, and so proceed, by increasing one or two hairs till you come to six or seven hairs at the top. Let the single hairs, or three or four of the next links be of a white or light colour.

The artificial fly line should be very strong at the top; by this method any young angler will cast a fly well, and may quickly become an accurate artist; and if he chances to fasten his hook, and cannot come to loosen it, he will not lose above one link, or two at most, though he pull to break it; because the line is so strong at the upper end. You may angle with stronger lines at the cast-fly than at ground, in a clear water, for the trout. For in a clear water at ground for trouts, graylings, and salmon smelts, never use a line made otherwise than with a single hair at hook, and so on as above directed; only never have above four hairs in any one link of the line. At the bottom of every line have a small water-noose, or loop, that you may hang on a hook of any size, whipt to a line consisting of two or three hooks.

In a muddy water, or one discoloured by rain, the running-line should be half the length of the rod more or less, and the two lowest links of three hairs a piece. Next should be a link of four hairs, with a loop or water-noose to fasten it to another of the same number, having likewise a water-noose at its bottom. Then proceed with links of five or six hairs a-piece, to the end. The three lowermost links or gildards, should be of a sorrel, brown, or chesnut colour. Your cane or reed-rod must have a top, neither too stiff, nor too slender; the rod to be about three yards and a half long, and the top about one yard and a half, or two yards, of hazle, either in one or two pieces, or five or six inches of whalebone, made round, smooth, and taper. All this will make the rod five yards and a half long, or five yards at least.

The line should have more lead in a great, troublesome, rough river, than in one that is smaller, and more quiet; as near as may be, always just so much as will sink the bait to the bottom, and permit its motion, without any violent jogging on the ground. Carry the top of your rod even with your hand, beginning at the head of the stream, and letting the bait run downwards as far as the rod and line will permit, the least dragging and rolling on the ground. No more of the line must be in the water than will permit the lead to touch the bottom. For you are to keep the line as straight as possible, yet so as not to raise the lead from the bottom. When you have a bite, you may perceive it by your hand, and the point of your rod and line; then strike gently, and straight upwards; first allowing the fish, by a little slackening the line, a small time to take in the bait. In a clear water, indeed, it has been found best to strike at the first biting of the fish, when you angle for trout, grayling, or salmon smelt.

The best colour for lines, are the sorrel, white, and grey; the two last for clear waters, and the first for muddy rivers; nor is the pale watery green to be slighted, which colour you may make after the following manner:

Take a pint of strong ale, half a pound of soot, a small quantity of the juice of walnut-leaves, and the like quantity of allum; boil all these together in a pipkin for half an hour, then take it off, set it by till it is cold and then put in the hair.

Or thus; boil a large handful of marigold-flowers in a quart of allum-water, till a yellow scum arises, then put in half a pound of green copperas, and a like quantity of verdigrease reduced to a fine powder; put these with the hair into the allum water, and let it lie ten hours or more, then take out the hair and let it dry. *See* ANGLING.

LINNET. A singing bird, so called because she feeds upon linseed, making her nest in black-thorn, white-thorn, and fir-bushes, but upon heaths more than any where else

They build them with very small roots, and other sort of stuff like feathers, those that build in the heath; but such as do it in hedges, build the outsides of their nests with moss, and line it within according as the place will afford.

Some of these birds will have young ones four times a year, especially if they be taken from them before they fly out of their nests; and the better the bird is in mettle, the sooner she breeds in the spring: the young may be taken at four days old, if you intend they shall learn to whistle or hear any other bird sing, for they being then so young, have not the old bird's song, and so are more apt to take any thing, than if you suffer them to be in the nest till they be almost fledged; but when they are taken out so young, care must be had to keep them warm, and to feed them but a little at a time; their meat must be rape-seed soaked and bruised, to which put full as much white bread as seed; fresh also should be had every day, for if it be sour, it immediately makes them scour and die: neither must their meat be given them too dry, for in such a case it will make them vent-burnt, and that is as bad as if they had been scoured. If you intend to whistle them, let it be done when you feed them, for they will learn very much before they can crack hard seeds; and hang them under any bird, whose song you have a mind he should learn. These birds, when young, are exceeding apt for any song or tone, nay, they may be even taught to speak. The cocks may be known from the hens, first, by the colour of the back; for, if it be of the dark coloured linnets, the cocks are much browner than the hens on the back, and on the pinion of the wing: and so of the white-thorn linnets, the hens are much lighter than the cocks: but this must be noted; that a hen linnet of the dark colour, is darker than the cocks of the light-coloured linnets. But the second, and surest way of all to know him is, by the white in his wing.

Whereas this bird is sometimes troubled with melancholy, when you find the end of his rump swelled, it must be pricked with a needle, and the corruption let out, and the same squeezed very well, with the point of a needle, then anoint him with an ointment of fresh butter and capon's grease, and for two or three days feed him with lettuce, beet-seeds, and leaves; you also may give him the seeds of melons chopped in pieces, which he will eat very greedily, but when you find him mend, take the melon-seeds away, give him his old diet again, and put into his water two or three blades of saffron, and white sugar-candy, for a week or more, till you perceive him perfectly well.

The next disease he is infested with, is a scouring; the first sort thereof, which is very thin, and with a black or white substance in the middle, is not very injurious, nor dangerous; but the other, which is between black and white, not so thin as the former, but very clammy and sticking, is never good in a bird. For his recovery, give him at first, melon-seed shred with lettuce, and beet-seed bruised, and in his water, some liquorice and white sugar-candy, with a little flour of oatmeal therein; and diligence must be used to observe him at first when he is sick, that so he may have a stomach to eat, for in two or three days it will be quite gone, and then it is difficult to recover him.

The worst of all his diseases is, the white clammy scouring, which is mortal if it be not timely looked after; this proceeds from bad seeds, and many times from want of water; and the badness of the seeds may arise from damage taken at sea, by over-flowing, or laying in the wet too long before they have been housed, if the bird be not helped at the first appearance, it takes away his stomach, and makes him droop and fall from his meat; therefore to cure him, give him flax-seed, taking away all other seeds, then some plantain-seed, if it be green, or else it will do him no good; but if such cannot be got, give him some of the leaves shred very small, and some oatmeal bruised, with a few crumbs of bread; in his water give him some white sugar-candy and liquorice, with a blade or two of saffron.

Another distemper is the phthisick, and may easily be perceived, by seeing the bird pant and heave his belly fast, and sit melancholy, with his feathers standing big and staring; it is likewise discovered by his belly, when it shews itself more puffed than ordinary, full of reddish veins, and his breast very lean and sharp; he will now also split and cast his seed about the cage, not caring to eat at all. This disease often befals them for want of water, having charlock seeds mingled among their rape-seeds, and for want of giving them a little green meat in the spring of the year. When you perceive your bird begin to be troubled with this evil, cut the end of his rump, and give him white sugar-candy, with two or three bits of liquorice, or for want of such sugar-candy put in fine sugar; for his meat you should give him beet and lettuce-seeds to feed on, or some of the herb mercury, which is very good against this distemper for any seed-bird. You may likewise give him melon-seed chopped small; at the bottom of the cage lay some gravel, with a little powdered sugar, and a little ground oatmeal; you may also put in some loam, with which the country people daub their walls instead of mortar and sand, bruised small, and it will bring the bird to his stomach if he be not past cure.

This bird is subject to the strains, or convulsions of the breast, for which you are to feed him with lettuce, beet, and melon-seeds, bruised; dissolve sugar-candy in his water, and some of the nightingale's paste, with a little liquorice, so much that the water may taste of it; continue this course for the space of four or five days, now and then taking it away and giving him plantain water; and the same day be sure to give him beet or lettuce-leaf.

The linnet is subject to a hoarseness in his voice, which many times comes through his straining in singing; and he often gets a husk in his throat which is seldom helped, to come so clear off as at first; it frequently also happens, if he be a strong mettled bird, that he breaks somewhat within him, so that he will never come to sing again; and farther, the said hoarseness proceeds from his being kept up very hot, and on a sudden his cage opened to the air, which immediately strikes a cold to his breast and throat, and often kills him; for if you have a bird in the moult, you must not carry him to the air, but keep him from the air till he is moulted off, then open him by degrees, that he may not take cold, and after his moult, give him beet-leaves, or some liquorice in his water, to cleanse him. Now to cure his hoarseness, the best remedy is, to put some liquorice and a few anniseeds in his water, and then to set him in a warm place. *See* PASTE.

LIPPITUDE. A lippitude is a defluxion of a salt, sharp humour from the eyes, attended with an itching, pain and redness; the eye-lid swelling, so as to turn the inside as it were outward; the sight grows dull, and the eyes frequently closed up: it usually attacks young horses at about five or six years of age; it comes and goes once in three months, or oftener, and continues each time, more or less, from a week to a month; thus it goes on, perhaps, two years or more, when all the symptoms cease, but end in a cataract.

The sharp humour abovementioned runs down the cheek in greater or less quantities, and is so hot as to scald and destroy the hair there: the veins in all the parts about the eyes are very turgid, sometimes the eye appears dull, at others cloudy, then again clearer: but it is rarely sprightly: the humour that distils from the eyes is sometimes so thick as to give up the eye-lids for some time.

The seat of this disease is the glands on the inside of the eye-lids; and it may be observed, that if they are of a good size, and well shaped, if they are clear, and the light is good, as soon as the sharp humours abate, if the returns are less violent and more rare, some hope of recovery, without ending in a cataract, may be indulged; but if the eye shrinks and grows less, a cataract will certainly ensue.

In order to the cure, if the eye is not in a perishing state, and the horse in low condition, bleed: then, once in eight days give a cooling purge; and, on the days free from purging, give diuretics, particularly nitre,

nitre to the quantity of two ounces in a day: and, in order to ſtrengthen the relaxed glands, and membrane of the eye-lid, many light ſcarifications may be made, with a lancet; on the inſide of the eye-lid, which turns out; then the whole eye may be waſhed two or three times a day with the following lotion:

Take of white vitriol, two drachms; camphor, one drachm; rub them well together, then gradually mix them with a pint of water.

When by theſe means, the ſharp humour decreaſes, give the following alterative powder, every morning, for two or three months; then, after an interval of the ſame time, repeat it as before.

Alterative Powder.

Take of crude antimony, half an ounce; gum guaiacum, two drachms; mix them for one doſe.

When the blood veſſels about the eyes and parts adjacent, are extremely turgid, they may be well bathed, two or three times a day, with ſtrong vinegar. It is the practice of ſome on theſe occaſions, to take up the principal branches of veins; and in ſome other caſes, to tie up arteries; but this method is rather hurtful than otherwiſe, by checking the circulation and depriving the parts of nouriſhment.

If the eye ſeems to ſhrink, waſh it with the following, two or three times a day.

The Collyrium.

Take of crude ſal ammoniac, two drachms; brandy, four ounces; lime-water, one pint, mixed.

With this collyrium, try alſo what a better diet will do; allow him a moderate quantity of oats: good nouriſhment and moderate exerciſe may give a favourable turn; indeed, in diſorders of the eyes, hard labour ſhould be univerſally avoided. It is worthy of remark, that low keeping, after good and plentiful feeding, greatly hurts the ſight; and hard labour, added to the ſparing diet, aggravates the diſadvantage conſiderably. Colts are often made to go blind, by full feeding, and early hard working.

Theſe means not ſucceeding, the laſt reſource is mercurials; and, perhaps, the moſt proper will be the turbith mineral, which may be given as directed for the farcy.

LIPS OF A HORSE. If theſe be thin and little, they contribute to a good mouth, but the contrary if they be large and thick.

LISTENING. A horſe is ſaid to go a-liſtening pace. *See* ECOUTE.

LIVER, STOPPAGES IN, IN HORSES. The obſtruction in the liver frequently happens through exceſs of humours, that are not capable of being digeſted into good and wholeſome blood; they clog and hinder the cavities of the paſſages, and by that means cauſe pains and ſickneſs. Theſe humours are known by the dulneſs of the countenance, hanging of the head, often ſtraining, and inward groaning.

Take agrimony, chamomile, fumitory, parſley, wormwood, ſuccory, endive, the ſeeds of lupines, and flowers of Mayweed, a handful; liquorice, gentian, and ſpikenard, of each an ounce: bruiſe them well, and boil them in a quantity ſufficient of cyder or perry, and give it the horſe very warm, and let him walk thereupon for the ſpace of an hour after; and a fortnight after be ſparing in his diet, that the humours by this means may diſperſe and conſume.

LIVER, DEFECTIVE, IN SWINE. To reſtore.

Take an ounce of flour of brimſtone, and half a drachm of crude antimony; put it into half a pint of verjuice, or the juice of four grapes, and give it warm; this will alſo reſtore a palled appetite.

LOACH. Though it is a ſmall, yet it is a fine fiſh: his breeding and feeding is in little and clear ſwift brooks or rivulets, and in ſharp ſtreams; gravel is his uſual food.

He is ſmall and ſlender, ſeldom exceeding three inches in length: he is bearded like a barbel, having two fins at his ſides, four at his belly, and only one at his tail, and is freckled with many black and brown ſpots.

The loach is commonly full of ſpawn, which is, with the fleſh, a very grateful food to weak ſtomachs, affording great nouriſhment. He is to be taken with a very ſmall worm, near the ground, for he delights to be near the gravel, and therefore is ſeldom ſeen on the top of the water.

LOCKS, are pieces of leather, two fingers broad, turned round, and ſtuffed on the inſide, to prevent their hurting the paſtern of a horſe, round which they are clapped.

To LODGE (among Foreſters) a buck is ſaid to lodge, when he goes to reſt. *

LONG-JOINTED HORSE, is one whoſe paſtern is ſlender and pliant.

LOW. To carry low. *See* CARRY.

LOW-BELL AND HAND-NET. With theſe inſtruments birds are taken in champaign countries, as alſo in ſtubble-fields, eſpecially that of wheat, from the middle of *October* to the end of *March*, and after this manner; when the air is mild, about nine o'clock at night, the moon not ſhining, take the low-bell, which ſhould be of a deep hollow ſound, and of ſuch a reaſonable ſize as may be well carried in one hand, toll this bell juſt as a weather-ſheep does, while he is feeding in paſture ground: you may alſo have a box much like a lanthorn, about a foot and a half ſquare, big enough to hold two or three great lights, let it be lined with tin, and one ſide open to ſend forth the light; fix this box to your breaſt to carry before you, and the light will caſt at a great diſtance before you, very broad, by which means you may ſee any thing on the ground within the compaſs of the light, and conſequently the birds that rooſt therein.

For the taking of them you are to have two men with you, one on each ſide, walking a little after you, that they may not be within the reflexion of the light that the lanthorn or box caſts forth; and each of them ſhould be provided with a hand-net, about three or four feet ſquare, which muſt be fixed to a long ſtick, to carry in their hands, ſo that when either of them ſees any birds on his ſide, he is to caſt his net over them, and ſo take

* Q. first she

take them up, with as little noise as may be; and let him that carries the light and low-bell be the foremost to take them up, without being too hasty, for fear of raising others.

The sound of the low-bell causes the birds to lie close, and not to stir while you lay the net over them.

If you would practise this sport by yourself, carry the low-bell in one hand, and in the other a net, about two feet broad and three long, with a handle, which is to lay upon them as you espy them: but some persons, instead of holding the light to their breast, tie the low-bell to their girdle, and their motion causes the bell to strike: and the light they carry in their hand, extending their arm before them; but then their lanthorn or box, is not so large as that hung at the breast.

LOYAL. A horse is said to be loyal that freely bends all his force, in obeying and performing any manage he is put to, does not defend himself or resist, notwithstanding his being ill treated.

A loyal mouth is an excellent mouth, of the nature of such as we call mouths with a full rest upon the hand.

LUNGS. *See* PLEURA.

LUNGS OF ASSES, imperfections in, are known by painful or heavy breathings or pantings, to remove which,

Boil mugwort and bay-leaves in water; sweeten it with brown sugar, or sugar-candy if you can get it, and give a pint at morning and evening.

LUNGS IN BEASTS, growing of. The lungs of beasts are very oft subject to sickness or stopping, as will appear by their coughing, and wheesing, and sometimes hanging forth their tongues a great while after, which is a great sign of an impediment in their lungs.

Take a pint of tanner's oaze; blend it with a pint of new milk, an ounce of sugar-candy, two penny-worth of sallad oil, and two spoonfuls of tar; and give it to the beast warm at twice.

Also you may give them two balls (each as big as an egg) or tar, butter, garlic, and sugar-candy, blended together, and it will mend them very speedily. Or,

Take cloves, anniseeds, long-pepper, turmeric and fenugreek, of each an ounce; boil them in small ale, and give half a pint hot in a morning for a week.

LUNGS OF GOATS, consumptive, to cure.

Take the leaves of dew-berries or brambles, scabious and comfrey, each a handful, liquorice and anniseeds each an ounce, boil them in small beer a quart or three pints, strain it out, and give half a pint warm morning and evening.

LUNES. } (in Falconry) leashes, or long lines
LOWINGS. } to call in hawks.

LUNETS. A sort of leather spectacles for vicious horses.

LURCHER. A kind of hunting-dog, much like a mongrel greyhound, with pricked ears, a shagged coat, and generally of a yellowish white colour: they are very swift runners, so that if they get between the burroughs and the conies they seldom miss; and this is their common practice in hunting; yet they use other subtleties, as the tumbler does, some of them bringing in their game, and those are the best. It is also observable that a lurcher will run down a hare at stretch.

LURE (in Falconry) a device of leather, in the shape of two wings, stuck with feathers, and baited with a piece of flesh, to call back a hawk when at a considerable distance.

MADNESS IN CATTLE, to cure.

First cord them in the neck; let them blood in the temples, under the eyes, and in the ears; let them bleed very well, and give them fenugreek, turmeric, long pepper, and green anniseeds, all in like portions, and but three penny-worth in the whole, with the juice of rue, or else very small grains, put together: give it them in a quart of strong ale or beer milk-warm, but give one half of the thinnest in at their nostrils, and the rest at their mouth.

This disease is easily found out; for they will reel as they go, and set their head into their neck, or against a wall or a gate, and two men can hardly stir them.

MADNESS IN DOGS. *See* DOGS MADNESS.

MADNESS, OR FRENZY in horses.

This disease is very dangerous, and often terminates in death, and is occasioned by hot and fiery humours, unseasonably mixing with the blood which by its ascending inflammation afflicts the brain, that principal seat of life: and this is known by the staring of the horse, the distorting of his eyes, hanging of his ears, staggering and giddiness, his often crying and forsaking his meat, and, if it be wrought to a height, his often beating himself against the posts, manger, and other places he can conveniently come at, biting, stamping, and flying about, with many the like disorders. The remedy is,

Speedily let him blood in the temple veins, and if he bleed not freely there, strike him in the neck veins, when having bled sufficiently, take the roots of gourds, or wild cucumbers, black hellebore, rue, and mint, with virga pastoris, of each a handful, boil them in beer or fair running water, and give him the liquid part very warm, and doing so three or four times it will purify and purge the blood; but if you suppose it too weak for the horse's constitution, you may dissolve in it an ounce of well washed aloes; and observe in this case above all things to keep him warm.

MADNESS IN RABBITS; a disorder not uncommon, and is caused by corrupt blood, by rankness of feeding, and is known by their leaping, tumbling, and wallowing with their heels upwards. The remedy is,

Strew endive, parsley and hart-thistle about their holes, and by eating these it will cure them.

MADNESS IN SWINE should be speedily looked to, as it is a dangerous distemper, mostly caused through worms breeding in the head, and sometimes makes the swine destroy himself by beating against the sty, or tumbling down some steep place, or into the water, unless

unless great care be taken. The following is the remedy,

Take an ounce of the juice of briony root, as much of the juice of wormwood, single poppy water a quarter of a pint; hold up his head by strength, and put these warm into his nostrils, and so hold it the space of a quarter of an hour at least, then give him a drench of vinegar, wherein colewort leaves or lettuce have been boiled.

MAGGOTS IN SWINE, to remove.

Get black soap, or for want of it other soap, mix it with tar or tar-water, and anoint the place. This will not only kill the present, but even prevent the future from breeding in sore places.

MAGGOT-FISHING begins with *May* and continues till *Christmas*; but the best time for taking grayling in rivers, is from the middle of *August* till *November*. Maggots are constantly of use in fishing; for all sorts of fresh-water fish (except salmon, pike, and shad) will feed upon this bait in a very plentiful manner. It is the best bait for quickness of sport; for upon throwing in a few handfuls upon them, by little and little, before you begin to fish, you will by that means draw the fish together, and they will pick up the baits from the bottom, just as the poultry will pick up their food from the ground.

It was formerly the practice to bait the hook with the maggot, and to bait the holes with other sort of ground baits, which could afford but little sport; for neither trout, grayling, nor perch will eat grains, stewed malt, pastes, or any such dead baits, and therefore it is necessary to bait the hole, with the same you put upon your hook; living baits, when thrown into the water, being much more tempting than dead ones, and make the fish more eager. If you lose a hook in a grayling's mouth, there is great probability that in five minutes you recover it, by using more caution the next time you strike; for when the fish are come in shoals to your baiting-place, the largest fish presses most forward, and soonest catches your bait.

When you fish in rivers with this bait, your line should be finer than for pool-fishing, and leaded pretty heavy: the lower link must be a single hair, or a fine silk-worm gut; and always observe that your shot drags upon the bottom, especially in a stream.

MAGPIES, GLEADS, AND CROWS, TO TAKE. When you have found any carrion, upon which crows, pies, kites, &c. are preying, over night set your lime-twigs every where about the carrion, but let them be small, and not set too thick; if they are, they being subtle birds, will suspect some mischief designed against them. When you perceive one to be fast, advance not to him presently, for most commonly when they are surely caught, they are not sensible of it.

They may be taken another way, and that is by joining several nooses to a packthread, and pegging it down about a yard from the carrion; for oftentimes when they have gotten a piece of flesh, they are apt to run away to feed themselves, and if the nooses be thick, it is two to one but the nooses catch some of them by the leg.

MAILED, speckled, or full of specks, as the feathers of hawks, partridges, &c. or as the furs of some wild beasts are.

MAKE-HAWK among falconers, an old staunch hawk, which being used to fly, will easily instruct a young one.

MALANDERS, } a disease in horses, which takes
MALENDERS, } its name of *melandare, Italian*, to go ill. They are certain chops, or chinks, appearing on the inside of the fore legs, just against the bending of the knee, which discharge a red sharp pungent water.

They are painful, and make a horse go stiff, and sometimes to halt at his first setting out of the stable.

They are easy to be discovered, by the staring and bristly hairs growing out of the affected part, and they are frequently attended with a sort of scab, either bigger or lesser, according to the various degrees of this evil sorrance.

They proceed sometimes from corrupt blood, hard labour, or being over-ridden; sometimes from want of clean keeping or rubbing; and most commonly such horses as have the most hairy legs (as the *Flanders* and *Friesland* horses) are most subject to this disease.

Those things which are good for the scratches, and selanders (*which see*) are all good for this.

They proceed from the same cause, and consequently require the same method of cure, which consists in washing the parts with old chamber-lye, or a lather of soap, warmed; and afterwards applying over the cracks a strong mercurial ointment spread on tow, and renewed night and morning till the scabs fall off, and the cure is completed; when it will be necessary to give the creature a gentle purge or two.

Instead of a complete cure, you ought rather only to endeavour to allay the humour, and qualify its sharpness; and therefore content yourself with keeping the part very clean, by scouring off the corruption that sticks to the hair or skin, with black soap, rubbing the malanders with it, and washing them with urine, or good lye, or oil of nuts shaken with water; or else to anoint them with butter fried till it becomes black.

But the surest method of cure, is to mingle equal quantities of linseed oil and aqua vitæ, stirring them and shaking them till the mixture grows white, with which anoint the sorrance once a day, which will dry a little, and allay the sharpness of the humour, so that the malanders will neither cause a swelling nor pain.

MALT-LONG, } is a cankerous sorrance about
MALT-WORM, } the hoof of an horse, just upon the coronet, which breaks out into knobs and bunches that run with a watersh, sharp lye, and humour, which will, if let alone, envenom the whole foot.

For the cure: if it be in summer-time, pound black snails and burdock-roots together, and lay them on the sore: renewing the application once in twenty-four hours.

If in the winter-time, pound the scrapings of a pot or cauldron,

cauldron, with a handful of the inner rind of the elder-tree, and apply it to the sorrance; renewing the application once a day. Or you may lay a like quantity of garlic, pepper, and honey, stamped together, on the part affected.

MANAGE, is a word that signifies, not only the ground set apart for the exercise of riding the great horse, but likewise the exercise itself. The manage, or ground proper for managing horses, is sometimes a covered place, as riding-houses in great academies, for continuing the exercise in bad weather; sometimes it is open in order to give more liberty and pleasure, both to the horse and horseman.

We always suppose a center in the middle of the manage, for regulating the rounds and volts.

Sometimes this centre is distinguished by a pillar fixed in it, to which they tie the horse when he begins to learn; upon the side of the manage other pillars are placed, two by two in order to teach horses the fore quarters, by tying them with ropes. *See* PILLAR.

MANAGE, OR EXERCISE OF A HORSE, is a particular way of working or riding him.

Make your horses work upon the air and the manage that you used to put them most to.

A horse is said to manage, when he works upon volts and airs, which supposes him broke and bred.

A horse is said to be thoroughly managed, or a finished horse, that is well broke and bred, and confirmed in a particular air or manage.

HIGH MANAGE, is the high or raised airs which are proper for leaping horses.

In chusing a horse for the manage, make choice of a horse of a middle size, that is likely, full of spirit and action, short trussed, well coupled, having good feet and legs, and shoulders very easy and supple.

It ought also to be observed, that horses which have thick, stiff, and short joints, that are no ways flexible or pliant, are unfit for the manage; for glib and bending joints, if they be not too long, are one of the chief qualities requisite in a fine and delicate horse of manage.

As for the age most proper to begin to work a horse designed for the manage, he should not be too young, not only because his apprehension is not yet come to him, but also because a horse of three years old being but a gristle, stopping and going back will spoil him, by straining his back and stretching his hams.

Management of Cattle; and first of Oxen and Cows.

In the choice of these cattle, the farmer should be particularly careful to consider the nature of his ground. If his pasture is rich and good, he should purchase the larger breed; if otherwise, the smaller sort. The *Lancashire* is the largest, and the *Scotch* and *Welch* the smallest; but there are many sorts between. Those bred in *Yorkshire* are middle sized, chiefly red and hardy; they yield very good profit, and will thrive on almost any soil. All the cattle of this kind should be chosen of one sort and as near in size and colour as possible. As the breed greatly depends on the bull, great care should be taken to choose one that is strong, well made, full of vigour, and perfectly in health; one that has a sharp quick countenance, a broad curly forehead, large black eyes, long horns, a thick neck, a long and large belly, smooth hair, straight flat back, square buttocks, round and fleshy thighs, and his legs straight with very short joints. Bulls of this description will produce the best breed of draught oxen.

The choice of the cow is likewise equally important, as the breed will naturally possess a certain share of the bad as well as good qualities of each of their progenitors. I would therefore recommend those that have broad black full eyes, large horns, a broad forehead, a long and thin neck, a deep belly, round legs, thick thighs, short joints, large deep udder with four teats, and large feet with sound hoofs.

The size of the cows, as I observed before, must be suited to the goodness of your land, though the largest generally give most milk; but for whatever purpose you purchase them, whether for breeding, fatting, or milking, by all means buy those that are taken from worse ground than your own.

Do not put the cow to bull till she is three years old, and then let it be about the month of *July*. If she has had calf before, it must be taken from her, and she must be milked for three days after to prevent her udder being sore. The red cow is esteemed the best for milk, and the black for producing calves.

Put the cow into good grass about a fortnight before she calves; or, if it happens in the winter season, give her hay, and when she has calved keep her that day and night in the house, and let the water she drinks be made lukewarm; turn her out about the middle of the next day, if she has gained sufficient strength and is well cleansed, and take her in three or four nights more, and give her water, after taking off the chill, every morning.

Some take those calves they design to rear, away from the dams after they have suckled about a fortnight; others let them run with their dam all the year. The latter, however, is the most common way in the cheap breeding countries, and is considered to make the best cattle.

The most proper time for weaning calves is from *January* to *May*. Let them have milk for about twelve weeks, only a fortnight before you wean them mix water with it: and after they have drank milk about a month, take some of the sweetest hay you can get, and put small wisps of it into some cleft sticks, and place it so that they may easily come at it and learn to eat. After *Lady-day* when the weather is fine, they may be turned out to grass, but do not neglect to take them in the first two or three nights, and give them milk and water. Let them be put to grass that is short and sweet, that they may get it with some labour.

After the calves are weaned, set aside those males you intend to keep for bulls, and let the others be gelded for oxen; this I recommend to be done when they are about twenty days old, being at that time the least dangerous.

Oxen for the plough must be neither too fat nor too lean: the body should be large, the legs long and strong, the

the eyes full, the horns large, and the coat ſmooth and even. They muſt be well trained, ſo as quickly to anſwer the goad, and be obedient to the voice; but it is only by gentle and gradual means, and beginning early, that the ox can be brought chearfully to bear the yoke, and be eaſily governed.

At the age of two years and a half, or three at the lateſt, you muſt begin to tame him, and bring him under ſubjection; if delayed longer, he becomes froward, and often ungovernable. The only method of ſucceeding is, by patience, mildneſs, and even careſſes, for compulſion and ill treatment will only diſguſt him; ſtroaking him gently along the back, clapping him, giving him occaſionally boiled barley, ground beans, and ſuch other aliments as pleaſe him beſt, all of them mingled with ſalt, of which he is very fond, will prove of the greateſt uſe. At the ſame time his horns ſhould be often tied, and ſome days after the yoke is to be put on his neck and faſtened to a plough, with another ox of the ſame ſize ready trained; theſe are to be tied together at the manger, and in the ſame manner led to paſture, that they may become acquainted, and accuſtomed to have one common motion. He muſt alſo be indulged, and labour only at ſhort intervals; for till he is thoroughly trained he tires himſelf very much; and for the ſame reaſon he muſt be fed more plentiful than uſual. After he has drawn the plough from his third to his tenth year, it will be adviſeable to fatten and ſell him, as being then of a better fleſh than if he was kept longer.

The age of this creature is known by his teeth and horns. The firſt fore teeth which he ſheds at the end of ten months, are replaced by others, larger, but not ſo white; at ſix months the teeth next to thoſe in the middle fall out, and are alſo replaced by others; and in three years all the inciſive teeth are renewed. They are then equal, long, and pretty white; but as the ox advances in years, they wear, become unequal, and black. It is the ſame in the bull and cow; ſo that the growth, and ſhedding of the teeth are not affected by caſtration, or the difference of ſexes. Nor is the ſhedding of the horns affected by either; as both bull, ox, and cow, loſe them alike at the end of three years; and theſe are alſo replaced by other horns, which, like the ſecond teeth, remain; only thoſe of the ox and cow are larger and longer than thoſe of the bull. The manner of the growth of theſe ſecond horns is not uniform, nor the ſhooting of them equal. The firſt year, that is, the fourth of the ox's age, two ſmall pointed horns make their appearance, neatly formed, ſmooth, and towards the head terminated by a kind of button. The following year this button moves from the head, being impelled by a corneous cylinder, which alſo lengthening, is terminated by another button, and ſo on; for the horns continue growing as long as the creature lives. Theſe buttons become annular joints, which are eaſily diſtinguiſhed in the horn, and by which the age of the creature may be readily known; counting three years for the point of the horn to the firſt joint, and one year for each of the other intervals.

The diſeaſes of theſe creatures are fewer than thoſe to which the horſe is incident, and in general they are more eaſily cured.

Sheep.

Sheep differ no leſs in their reſpective breeds, than in their ſize, and the quantities and goodneſs of their wool. If the farmer has a rich paſture, he ſhould chuſe the beſt; but if otherwiſe, he muſt be content to ſuit the kind to the nature of his ground.

With reſpect to the breeds, there is no certain direction for their choice, becauſe they are often mixed; but in general the large *Lincolnſhire* ſheep are fitteſt for rich paſtures, that lie upon the banks of ſalt water rivers, or ſuch as are within the influence of the tide. The beſt for rich paſtures out of the reach of ſalt water is the *Leiceſterſhire* breed; and for thoſe whoſe grounds lies high, the *Herefordſhire*. Theſe laſt, though of a ſmaller kind, are yet very profitable. For a barren paſture the *Worceſterſhire* ſheep are beſt.

Whatever breed the farmer chuſes, he muſt be careful that the ſheep are good of their ſort. The wool muſt not be harſh, but oily and ſoft; the ſheep muſt be well ſhaped, and large boned for the ſize. The rams ſhould be choſen with particular care, becauſe the breed will in great meaſure depend on them. They muſt have ſoft and well curled wool, with the ſkin white under it; the body ſhould be long, the forehead large and riſing, the eyes full, and their looks cheerful. The ewes muſt be large bodied, their neck arched, round upon the buttocks, and ſhort legged.

The farmer ſhould not purchaſe thoſe ſheep that are in any part naked; for the loſs of wool is generally the conſequence of ſome inward or outward diſorder. He muſt be careful, likewiſe, to examine the mouth, for if the gums be not red and the teeth faſt, the creature will come to litle good. The time of buying them when intended for breed, is two years old, and they will then breed five years very well. The age of a ſheep, like that of a horſe, is known by the mouth. When a ſheep is one ſhear, as the farmers expreſs it, there are two broad teeth before; when it is two ſhear, it will have four: when three, ſix; when four, eight. After this their mouths begin to break. The quality of the land makes a material difference in the breed of the ſheep. The flat paſtures produce ſtrait tall ſheep, and the barren hills and downs breed ſhort ſquare ones; woods and mountains breed tall and ſlender ſheep, but the beſt of all are thoſe bred upon new ploughed land, and dry grounds. On the contrary, all wet and moiſt lands are bad for ſheep, eſpecially ſuch as are ſubject to be overflowed, and to have ſand and dirt left on them. The ſalt maſhes are, however, an exception to this general rule, for their ſaltneſs makes amends for their moiſture, any thing of ſalt, by reaſon of its drying quality, being of great advantage.

Before the rams are put to the ewes, the farmer ſhould conſider at what time of the ſpring his graſs will be fit to maintain them and their lambs, and whether he has turnips to do it till the graſs comes; for very often both the ewes and lambs are deſtroyed by the want of food; or, if this does not happen, if the lambs

 are

are only ſtinted in their growth by it, it is an accident that they ſeldom recover. The ewe goes twenty weeks with lamb, and therefore it is eaſy to calculate the proper time for her to take ram.

The beſt time for them to yean is in *April*, unleſs the farmer has very forward graſs, or turnips, or the ſheep are field ſheep, where he has not incloſures to keep them in, then it may be proper they ſhould yean in *January*, that the lambs may be ſtrong by *May-day*, and be able to follow the dam over the fallows and water furrows; but then the lambs that come ſo early muſt have great care taken of them, as, indeed, ſhould all other lambs at their firſt falling, otherwiſe, while they are weak, the crows and magpies will pick out their eyes.

If you ſave the graſs and weeds that grow in the land that you deſign to fallow in winter, that is, from *Chriſtmas*, and turn your ewes and lambs into them in *March*, if the winter is mild it will be of great advantage to them.

When ſheep are turned into fields of wheat or rye to feed, it muſt not be too rank, for if it is, they will be ſubject to ſcour. Ewes that are big ſhould be kept but bare of food, for it is very dangerous for them to be fat at the time of their yeaning; except, indeed, about a fortnight or three weeks before, they may be pretty well fed to ſtrengthen them.

When a ewe is near yeaning, ſhe muſt be ſeparated from the flock, and watched, in order to be aſſiſted; the lamb often preſents itſelf athwart, or with its feet firſt; and in this caſe, without aſſiſtance, the life of the ewe would be in danger. After yeaning, the lamb muſt be raiſed on its feet; at the ſame time all the milk in the ewe's udder muſt be milked out, it being vitiated and very noxious to the lamb, which muſt be kept from ſucking till the udder is filled with freſh milk. The lamb muſt be kept warm, and for three or four days ſhut up with the ewe, that it may learn to know her, during which time the ewe muſt be fed with good hay, barley meal, or bran mixed with a little ſalt; and water with the chill taken-off, and mixed with a ſmall quantity of flour, bean-meal, or ground millet, given her to drink. At the end of four or five days ſhe may be gradually fed like the reſt, and ſent with the flock, taking care that ſhe be not driven too far, leſt her milk be heated. Some time after, when the ſucking lamb has gathered ſtrength, and begins to play, no farther care is requiſite; it may be left to follow its dam to the paſtures.

To bring up lambs yeaned in the months of *October*, *November*, *December*, *January*, and *February*, they muſt be kept warm in the houſe during the winter, and not ſuffered to go out, except in the morning and evening to ſuck; but in the beginning of *April*, if the ſeaſon is mild, you may turn them into the fields. Previous to their going out, a little graſs ſhould be occaſionally given them, in order to habituate them by degrees to their new food. I would not adviſe the weaning of them before the expiration of ſix weeks or two months, though I know it is a cuſtom with many to do it at a month. It may be here neceſſary to obſerve, that white lambs are always preferred to thoſe that are black or mottled, white wool being the moſt valuable.

With reſpect to the time for cutting lambs, let them be about five or ſix months old, or even a little later in ſpring or autumn, when the weather is mild. This operation is performed two ways; the moſt common is by inciſion, when the teſticles, which are eaſily ſeparated, are drawn out through the wound. The other is performed without inciſion, by tying a ſmall cord very tight round the ſcrotum above the teſticles: for this compreſſion deſtroys the veſſels which ſupply them with blood and juice.

When caſtration is performed, the lamb becomes ſickly and dull, therefore it is neceſſary to give him, for two or three days, a little bran mixed with a ſmall quantity of ſalt: this will prevent a loſs of appetite, which frequently happens on the occaſion.

The ſhearing ſeaſon is beſt when it happens about the middle or latter end of *June*, becauſe it is good for them to ſweat a little in their wool before you cut it, and they muſt be well waſhed, as it will be a great help to the price of the wool. After they are waſhed, let them go two or three days in clean dry ground before they are ſhorn; in doing of which, great care muſt be taken not to hurt them with the point of the ſhears, nor yet cut their ſkins, becauſe of the flies, and obſerve that the wool be well wound up. Some ſhear their lambs alſo, which they do cloſe behind, and very little before, eſpecially the firſt year; but before they are ſhorn, great care ſhould be taken to tag them, that is, to clip away the wool of their tails, and behind, that the dung may not hang on it, which otherwiſe will occaſion them to be ſore, and the flies to blow them.

In general the weathers have the moſt wool, and it is alſo the beſt. That of the neck and the top of the back is the prime; that of the tail, thighs, belly, throat, *&c.* is not ſo good; and the worſt is that taken from dead beaſts, or ſuch as are ſick. White wool is alſo preferred to grey, brown, or black, as it may be died of any colour. Straight wool is better than curled, and it is even ſaid that the weathers, whoſe wool is too much curled, are not in ſo good a ſtate of health as the others.

Another very conſiderable advantage may alſo be reaped by folding them, that is, by leaving them for a proper time on lands intended for improvement. In order to this the ground muſt be incloſed, and the flock ſhut up in it every night during the ſummer. Theſe incloſures are made with hurdles, which are ſo contrived as to remove from one ſpot to another, as occaſion may require. By this means the dung, urine, and heat of the body of theſe valuable animals will in a ſhort time bring the ground into heart, whether exhauſted or naturally cold and barren. Experience has proved that one hundred ſheep will in one ſummer enrich eight acres of ground, which will continue full ſix years its fertility.

Among the various diſorders incident to theſe creatures the moſt fatal is the rot, which is produced by wet lands, coarſe food, and want of ſhelter. In this caſe, the ſheep ſhould be removed from ſuch places at the firſt appearance of the diſorder; and the ſick ſeparated

parated from the ſound, becauſe the diſeaſe is ſpreading.

The ſigns of the rot are feebleneſs, foulneſs of the ſkin, and particularly a dull and heavy look about the eyes. The gums grow white, the teeth foul, and the creature will be weak and ſcarce able to ſtir. Good air and ſhelter, and wholeſome food and water are very great requiſites for recovery; for the rot is rather a general decay than any particular diſeaſe. To effect a cure, however, to the above management, add the following:

Beat to pieces a quarter of a pound of juniper berries, and one ounce of bay berries, two drachms of grains of paradiſe; and add to theſe a pound and a half of bay ſalt, and half a pound of loaf ſugar; grind all well together, and keep it dry. Give the ſheep dry ſweet hay, in troughs, and ſprinkle it with this powder. Boil a pound of maſterwort root in two gallons of water, and give this to them mixed with the water they drink. To thoſe that are ſtill worſe, give alſo three drachms of mithridate diſſolved in a little warm ale every evening.

Swine.

Hogs being the moſt hardy of the farmer's ſtock, and always under his eye, are leſs ſubject to diſorders than any other; but there requires ſome ſkill in chuſing them, and the more carefully they are managed, the better they will ſucceed. If the farmer has good convenience for feeding them, the moſt profitable kind is the common hog, which is large bodied and long legged; but this requires not only the beſt food but the greateſt care. The ſmall low bellied hog is hardier; and feeds on any thing; it produces a great many young, and is in many caſes preferable to the other. When the farmer has convenience and abundance of good food, he ſhould chuſe the firſt; but in all other caſes the latter.

In the choice of hogs or ſwine for breed, take the moſt long bodied with deep ſides and belly, a ſhort noſe, thick neck and thighs, ſhort legs, high claws, a ſhort ſtrong groin, and a thick chine well ſet with briſtles.

Be cautious of having too many ſows in one yard; for their increaſe is ſo great, that for want of food, they will not only devour whatever falls in their way, but will deſtroy each other's young.

When it happens that the ſow miſſes the time of going to boar, that ſhe might have done in courſe, give her ſome parched oats in her waſh, or the ſmall end of the rennet bag, which will make her quickly brim or take boar.

The ſow, from the time ſhe is ſerved to the delivery of her fare of pigs, goes between ſixteen and ſeventeen weeks, and if properly attended, fed well, and kept clean, will bring three fares of pigs in a year.

Never ſuffer a boar to couple before he is a year old, notwithſtanding they are capable of ſerving the ſow when they are half that age; nor ſhould a ſow be younger than a year old when ſhe is ſuffered to take boar; and then ſhe will breed ſeven years after, except ſhe happens to have too great a number of pigs at a fare; as that is, ſo will ſhe be fruitful a longer time.

Notwithſtanding a ſow will bring three farrows of pigs in a year, yet it will not be neceſſary or convenient to ſuffer them at every breaming to take boar; becauſe if they bring a great number of pigs, three farrowings in a year will weaken them too much; and conſequently the pigs themſelves would be weaker, and require a greater ſhare of nouriſhment to bring them forward than others that are ſtrong, at their firſt farrowing, or ſhall they have the benefit of being ſuckled by a dam in full ſtrength.

Though a ſow may be with pig at the firſt breaming, as is generally the caſe, yet it will be moſt prudent to ſuffer her to keep company with the boar for ſome time afterwards, to prevent the caſting of her pigs before the time. She muſt likewiſe be carefully kept from the inſults of dogs, or from being too much hurried, for theſe ſometimes have cauſed them to ſlip their pigs after three months pregnancy.

Some young ſows at their firſt farrowing are ſubject to eat their pigs, and therefore ought to be watched carefully when they are near their time. The beſt method to prevent this is, to feed her well two or three days before ſhe farrows; but if this be not done, then as ſoon as ſhe has farrowed, waſh the backs of the pigs with a ſponge dipped in an infuſion of aloes and water warmed, and this will prevent her from devouring them.

It is the opinion of ſome farmers, that the beſt bearing time is from *November* to the end of *March*, or the beginning of *April*, ſo that there will be pigs farrowed at the beſt ſeaſons, either for killing as for ſucking pigs, or for ſtock pigs, that is thoſe to be turned into the ſtubbles after harveſt, to be reared.

The moſt proper time for killing ſucking pigs, and when they are firſt accounted wholeſome, is about three weeks old, and the others that remain for breed will ſoon begin to follow the ſow, and ſhift for themſelves.

As for the pigs you deſign to rear, after you have picked out the beſt for boars and ſows, the males are to be gelt, and the females ſpayed. The ſpayed gelts, as they are termed, are counted moſt profitable, by reaſon of the great quantity of fat they have upon their inwards more than other hogs. Young ſhoots, which are ſwine of about three quarters of a year old, are beſt for pork, and thoſe of a year, or a year and a half old, for bacon.

The moſt advantageous method of taking care of ſwine, is to feed them in ſuch manner that they may be kept in a middling condition till you would have them fattened; for if you keep them too fat, it will endanger their health, and if too lean it will make them ravenous. It is likewiſe adviſeable, to give them ſuch ſwill as you ſhould have at hand every morning and evening, to make them come home to their cotes; the reſt of the day let them graze, and get what food they can; only when corn is upon the ground, care muſt be taken to keep them within bounds.

Moiſt ſedgy grounds are good for ſwine, the roots whereof they will eat: as alſo all ſorts of haws, hips, ſloes,

ſloes, crabs, maſts, acorns, &c. with which, if you have plenty enough to fat them, their fleſh will prove much better and ſweeter than if fattened in a ſtye. However, if they are fattened in ſtyes, the farmer ſhould obſerve to give them as much water as they will drink, and to keep them very clean, which will much forward their fattening, and mend the taſte of their fleſh. But if the farmer lives remote from a wood, or in caſe the year does not ſuit for acorns or maſt, they muſt be fattened altogether with peaſe, if cheap, but if otherwiſe, with the meal of barley, rye, or offal corn, which muſt be mixed with water, whey, or ſkimmed milk. Thus they will be ſupplied till grown fat, which will be in about a month's time. After this, a little before they are killed, they muſt be fed only with peaſe. And farther, it is requiſite that every ſtye have a yard well paved with ſtone, for the hog to go out and eaſe himſelf, that he may keep his lodging the cleaner, and receive the benefit of the ſweet air.

It is alſo neceſſary, when hogs are put up to fatten, that they ſhould be kept out of the hearing of the cry or grunt of other hogs; for otherwiſe, upon their firſt confinement, notwithſtanding they have great plenty of food given them, they will pine and decline in their fleſh. When you are inclined to wean the pigs, feed them now and then when the ſow is from them, with the beſt milk that can be ſpared from the dairy. Let them firſt have it warm, but, at the end of three weeks, if you deſign to rear them, give it them cold, and then you may, at a month old, either let them be fed alone, or keep company with the ſow abroad.

If you are to buy hogs, and ſuſpect their health, draw your hand againſt the grain of the hair; and if the roots be white and clean, the hog is ſound, but if they be bloody and ſpotted, he is ſick.

MANE, the hair hanging down on a horſe's neck, which ſhould be long, thin and fine; but if it be frizzled, ſo much the better.

Manginess in the mane, may be cured by anointing it with butter and brimſtone mingled together.

MANGE IN DOGS, a diſtemper that proceeds from high feeding, and not ſufficient exerciſe, or an opportunity of refreſhing themſelves with dog-graſs, or by being ſtarved at home; which will cauſe them to eat the vileſt ſtuff abroad, ſuch as carrion, or even human excrement: either of theſe will heat their blood to a great degree, which will have a tendency to make them mangy. To cure them,

Give ſtone brimſtone, powdered fine, either in milk or mixed up with butter, and rub them well every day for a week with an ointment made of brimſtone and pork-lard, to which add a ſmall quantity of oil of turpentine. Or,

Boil four ounces of quickſilver in two quarts of water to half the quantity, bathe him every day with this water, and let him have ſome of it to lick, till the cure is perfected. Or,

A ſmall quantity of trooper's ointment, rubbed on the parts, on its firſt appearance will effect a cure. It will alſo free louſy puppies when infeſted with lice. Or,

Euphorb, album two ounces, flour of ſulphur, *Flanders* oil of bays, and ſoft ſoap, each four ounces. Anoint and rub your dog with it every other day: give him warm milk, and no water. Or,

Take large millet and ſweet turnip roots, which boil in cow's urine till it is like a broth, and with it rub your dog.

MANGE, IN SHEEP, may be cured.

Whether this appears within or without the ſkin, delay it not, but in a quart of man's urine boil the leaves and bark of elder and hemlock, then ſtrain it, and add a pint of water wherein tobacco ſtalks have been ſoaked; clip off the wool very cloſe, and waſh the place morning and evening, as hot as may be endured. Give them bay ſalt in their water, and keep them from wet paſtures and much green feeding. Or,

Take a quarter of a pint of the juice of hyſſop, a like quantity of chamomile, and a quart of water wherein tobacco ſtalks have been ſoaked, two ounces of brimſtone flour, a handful of fern root, and a quart of urine: mix the whole together, and waſh the ſheep with it as hot as may be, twice a day.

MANGE IN HORSES, is cauſed by over heat or cold, hard riding or labour, by which the blood is corrupted; or it may be occaſioned by eating unwholeſome food.

The diſtemper may be eaſily known by the ſtaring of the hair, its coming off from the ſkin in many places, and a ſcurf ariſing thereon.

When the diſtemper is caught by infection, an ointment compoſed of flowers of ſulphur and hog's-lard, will effectually cure it, if rubbed in every day immediately after the misfortune is perceived. In the mean time ſulphur and antimony ſhould be given with his ſeeds, and continued for ſome weeks after the cure is performed, in order to purify the blood. If the ſulphur ointment ſhould not be thought agreeable, a liquor made by ſteeping tobacco in ſtale chamber-lye, will anſwer the ſame intention; but the ſulphur and antimony ſhould be given with his feeds.

But if the diſtemper has been of ſome continuance, or if it owed its origin to low feeding, and a poverty of the blood, other methods muſt be purſued, the diet muſt be mended and the horſe indulged with a ſufficient quantity of hay and corn, and the following ointment rubbed into the parts affected every day: take of ſulphur vivum, half a pound: of crude ſal ammoniac, one ounce: and of hog's-lard a ſufficient quantity to make the whole into an ointment.

Give him every day a feed of ſcalded bran, and when the diſeaſe begins to diſappear the following purge; take of ſoccotrine aloes, ten drachms; of diaphoretic antimony, half an ounce; and of freſh jalap in powder one drachm: make the whole into a ball, with a ſufficient quantity of *Barbadoes* tar, and ſixty drops of chemical oil of anniſeeds.

If the caſe prove very obſtinate, waſh the mangy parts with ſublimate waſh, and give the brimſtone inwardly.

If

If poor feeding and hard work is the cause, the cure will be obvious.

Sublimate Wash.

Take of sublimate mercury, half an ounce; lime-water, a pint; mixed.

When the horse is thoroughly cured of this distemper, it will be necessary to wash the floor of the stable very well with soap-suds, and fume it well with burning pitch or charcoal. His cloaths also should be laid in scalding water, washed very clean with soap and thoroughly dried, before they are used again; for if these precautions are not used, other horses will be liable to the infection.

Another method of cure is: Take staves-acre seeds, two handfuls, infuse it in a quart of strong vinegar and hot ashes; wash the mangy parts with this liquor, and it will cure it in twice bathing.

In a slight case, strong tobacco infusion, with one third stale urine, soaked well into the affected places, may succeed; but as an efficacious unguent, take the following: strong mercurial unction, half a pound; brimstone finely powdered, four ounces; black soap, two ounces; crude sal ammoniac, an ounce and half; make the ointment with oil of bays, or of turpentine. Or, tar, gunpowder finely beaten, black soap, and oil of turpentine. In cases of long standing, where the ulcerations are so extremely foul, or if you will, the animalculæ, so strong and vigorous as to resist all moderate applications, the following ointment may be ventured: burnt alum and borax, in fine powder, two ounces each; white vitriol and verdigris, powdered, of each, four ounces; put them into a pot over the fire with two pound of honey, or lard and honey, equal parts, stirring till they are well incorporated; when cold, add two ounces strong aqua-fortis. But I should conceive the first ointment equal to almost every case, which being used at night, the sores if need be, may be washed twice a day with the sublimate water. Take half an ounce of sublimate, in powder, dissolve in a pint and half of water. Mashes, &c. in course; cloathing and every precaution against cold. Finish the cure with well washing in plenty of soap and warm water, rubbing thoroughly dry with linen cloths.

It generally proceeds from too great a quantity of viscid serum, bred in the bodies of horses by corrupt and foul feeding, as the eating of grains, a too frequent use of hot mashes, want of due exercise, and the want of currying, especially to a horse that has been used to it; for, by that means, the pores become obstructed, and the serosities of the blood are thereby accumulated in the small vessels of the skin; sometimes it proceeds from want of food and due nourishment; whereby the blood, being depauperated, is rendered unable to reach the passages of the skin, to make a secretion there, so that its serous parts, being detained in the small vessels, grow corrosive, and break through the skin; and sometimes it is caused by infection from other horses.—The signs are the falling off of the hair, especially about the loins and hams, and from most or all of the joints, according as the distemper is more or less prevalent; sometimes from the head and neck, but very frequently from the rump; the skin in these parts, by reason of the heat and corrosiveness of the matter, turns thick, hard, and sometimes crusted, like that of an elephant, and the little hair that remains in those parts stands almost always straight out or brittly; the ears are commonly naked, without hair; the eyes and eye-brows the same: and, when it affects the limbs, it gives them the same aspect: yet the skin is not raw, nor peels off, as in the surfeit; and it is from these appearances several farriers have termed it the elephantic malady.

As to the cure, most farriers lay a great stress on bleeding, insomuch, that they drain away blood from several parts of the body at once, viz. from the neck, the plate-veins, the tail, and sometimes from the flanks; and all this from a firm but ignorant conceit, that in the mange the blood is full of corruption; which, upon examining what has been already said, will be found a ridiculous practice, and very pernicious, especially to those horses that are low and out of heart; as nothing so often makes the disease degenerate into an ill habit, which may easily be followed by boils and ulcers, as it weakens the whole body, and thereby adds to that which is the cause of the distemper.

Therefore all that can be proposed by bleeding, is to lessen the quantity thereof, when it happens to be redundant in a horse, in order to give a freer passage and circulation to the juices in the extreme parts, that the secretions of the skin may be duly performed, and this I judge very necessary. After once bleeding, the following drench may be given:

Take jalap, in powder, an ounce and a half; salpolychrest, and cream of tartar, of each one ounce; carraway-seeds and anniseeds, of each an ounce and a half, in powder; mix them in a quart of warm water for one dose. Or,

Take senna three ounces; boil it in two quarts of water to one quart, then strain it, and add jalap and cream of tartar, of each an ounce; and buckthorn syrup, two ounces.

Either of these may be given, with the usual precautions, but they should not be often repeated; for purging is no otherwise necessary for the cure of the itch than bleeding, and only gives it a gentle help when rightly used, as it cools and refreshes a plethoric and full-bodied horse.

After these things recourse must be had to outward applications, for it is these alone that must give the finishing stroke to it, as the distemper is seated outwardly and not deep-rooted; for that purpose nothing has ever been found more effectual than sulphur, for which it bears the test of all ages, and, if it sometimes proves otherwise, it is altogether owing to the ill management of it, or the other prepposterous methods that are made use of along with it; the following will kill any mange in the beginning.

Take flour of brimstone, elecampane-root, and white hellebore, all in fine powder, of each six ounces; black pepper, powdered, and oil of tartar, of each one ounce and a half; strong mercurial ointment, six ounces; hog's-lard, three pounds; mix them well together into a soft ointment. Or,

Take

Take white precipitate, half a pound; hog's-lard, six pounds; essence of lemons, one ounce; mix for an ointment. Or,

Take camphor, two ounces; let it be rubbed down with a sufficient quantity of sweet-oil; then add white hellebore, six ounces; flowers of sulphur, one pound; mix them well together, with a sufficient quantity of hog's-lard to form a soft ointment. The camphor makes this ointment much more resolving and discutient than the one before it.

Either of these being rubbed upon the parts once in twenty-four hours, will kill the mange in a few days; neither will it be necessary to fret the skin to a rawness; for, instead of doing good, that method proves more frequently prejudicial, as it excites much pain, whereby a too great derivation of the humours is caused towards the infected parts, which is the reason why even the best farriers are obliged to have recourse to caustic medicines, the disease being grown too powerful to be destroyed by those of a milder operation. The use of copperas-water, and alum-water, is likewise prejudicial in most cases, as I have often observed; all that these can contribute towards the cure of the mange, is only by allaying the heat and itching, in which they sometimes succeed; yet, as they obstruct the pores very much by hardening the skin, they make it liable to crack, often rendering those parts subject to fresh heat and inflammation, by which it degenerates to ulcers and boils. The best way therefore is only to rub the mangy places gently, with a woollen cloth, to produce a moderate heat in the part, by which means the sulphurs will penetrate through the pores, into the small canals and vessels, with greater certainty than when they are daubed upon places that are raw or incrusted.

This is the true method of curing the mange.

Some make a mixture of quicksilver and brimstone, together with an addition of soot and black soap, which in some moist and watery cases may be useful. Others use arsenic, quicksilver, and some burning caustic remedies; but these ought never to be meddled with, except in very extraordinary degenerate circumstances, and when there happens to be excrescences that are dead, and without sense, which can by no means be brought to yield to milder methods.

Sollrysel recommends the following, which has been approved.

Take burnt alum and borax, in fine powder, of each two ounces; white-vitriol and verdigris, powdered, of each four ounces; put them into a clean pot, with two pounds of honey, stirring till they are incorporated; when cold, add two ounces of strong aqua-fortis. But when this disorder, as is generally the case, is contracted by low feeding and poverty of blood, the diet must be mended, and the horse properly indulged with hay and corn. With this view, there must be a constant supply of warm mashes, prepared with half malt and half bran, or equal parts of oats and bran, with four ounces of honey dissolved in each: let these be given night and morning, with a feed of dry corn every day at noon. During this treatment (which must be continued a week, to sheathe the acrimony of the fluids, and soften the rigidity of the skin) give one ounce of sulphur in each mash, and one ounce of nitre in water, every night and morning. In a week or ten days, when the frame becomes more invigorated, discontinue the mashes, and let the diet be changed to good oats and sweet hay; giving, in the morning and evening feeds, one of the following powders, intermixed with the corn first sprinkled with water.

Sulphur and prepared antimony, each a pound; rubbed well together in a mortar, and then divided into twenty-four equal parts for as many doses. Or,

Antimony, levigated, and sulphur, of each twelve ounces; liver of antimony and cream of tartar, each half a pound.—These to be mixed well together, and divided into the same number of doses as the former. As to the external treatment; previous to the commencement of the mashes, procure a pail of warm water and a quarter of a pound of soft soap (tied up in a linen rag) and with this, forming a strong lather, let every infected part be thoroughly washed and cleansed, so that no scurf or filth be left upon the surface; then rub tenderly dry with a coarse cloth, or separated haybands; and on the following morning begin to rub in upon every part affected a due portion of the following ointment:

Weak mercurial ointment, half a pound; quicksilver, four ounces; white hellebore, in powder, three ounces; black pepper, in powder, and oil of tartar, each one ounce; with olive-oil, sufficient to make it of a proper softness.

The unction must be repeated for seven days, ten days, or a fortnight, according to the urgency of the case.

MANGER, is a raised trough under the rack in the stable, made for receiving the grain or corn that a horse eats.

To MANTLE; (a term in Falconry) as the hawk mantles, *i. e.* spreads her wings over her legs.

MARES, the female of the horse kind, is chiefly considered here, under the notion of breeding, in order to propagate their species; therefore such as are designed for this purpose ought to be as free from defects as possible, and should, no more than the stallions, have either moon-eyes, watery-eyes, or blood-shot eyes; they should have no splaint, spavin, nor curb, nor any natural imperfection, for the colts will take after them; but choice should be made of the best and ablest, the high spirited, best coloured, and finest shaped; and the natural defects that may be in the stallion, should be amended in the mare, as well as that which is amiss in the mare, should be repaired in the stallion. *See* Breeding.

No mares in the world are certainly better to breed on than our *English* ones, provided you suit them to your particular design; as for instance, if you would breed for the manage, or pads, let your mares have fine forehands, with their head well set on, but not too long legs, broad breasts, large and sparkling eyes, and great bodies, that their foals may have room enough to lie, with good limbs and feet: let them be of a gentle and good disposition, and their motions naturally nimble and graceful; in a word, remember always, that the more good qualities

qualities your mares have, the better your colts will generally prove.

But if you would breed for racing or hunting, your mares must be lighter, with short backs, and long sides; their legs must be sometimes longer, and their breasts not so broad; and always chuse such as you are sure have good blood in their veins.

If you have tried the speed and wind of any particular mare, and find it good, you may the surer expect a good colt, provided she be still in her full health and vigour, and not above seven years old, or eight at most; for the younger your breeders are, the better your colts will generally be.

A mare may be covered when she is passed two years old, though the best time is after four years, when she will nourish her colt best; and though she may breed till thirteen, yet when she is past ten, it does not do so well, for commonly an old mare's colt will be heavy in labour. The proper time for covering, is reckoned from the end of the first quarter to the full-moon or at the full; for those colts will be stronger and hardier of nature; whereas it is observed in those that are covered after the change, that they will be tender and nice: but before the mare is covered, she should be taken into the house about six weeks, and be well fed with good hay and oats, well sifted, to the end she may have strength and seed to perform the office of generation.

But if you would have your mare certainly conceive, take blood from both sides her neck, near a quart from each vein, about five or six days before covering.

As for the manner of covering, she must be brought out into some broad place, and tied to a post, then bring out some stone jade to dally with her, to provoke her to appetite, after which let the stallion be led out by two men, and let him leap her in the morning fasting, and when he is dismounting, let a pail of cold water be thrown upon her shape, which by reason of the coldness will make her shrink in and truss up her body, whereby she is caused to retain the seed the better. Take away the stallion, and let the mare be put out of the hearing of the horse, let her neither eat nor drink in four or five hours after, and then give her a mash and white water: you may know if she stands to her covering, by her keeping a good stomach, and her not neighing at the sight of a horse; so likewise if she does not stale often, nor frequently open or shut her shape; or that her belly four days after covering be more gaunt, the hair more sleek and close to her skin, and the like. Some there are who put the horse and mare together into an empty house, for three or four nights, and take the horse away in the morning and feed him well, but the mare sparingly, and especially they give her but little water.

As for the ordering the mare after covering, let her be kept to the same diet as before, for three weeks or a month, lest the seed be impaired before it be formed in the womb; and let her be kept clean, without any exercise, during three weeks or a month, and in the house till mid-day with her feet well pared, and with a thin pair of shoes on: take her up again about the latter end of *September*, if not before, and keep her to the end of her foaling.

If she cannot foal, hold her nostrils so that she cannot take her wind; or if that will not do, take the quantity of a walnut of madder, dissolve it in a pint of ale, and give it warm to her; and in case she cannot void her secundine, then boil two or three handfuls of fennel in running-water, put half a pint thereof in as much sack, or for want thereof, a pint of strong-beer or ale, with a fourth part of sallad oil, mixed together, and give it her lukewarm in her nostrils, holding them close for some time; or for want thereof, give her good green wheat or rye, but the last is best, and they are as effectual; let her not eat her clean, for it is very unwholesome, and will dry up her milk.

When she has foaled and licked her foal, milk and stroke her before the colt sucks, which will both cause her to bring down her milk and make it to multiply, and keep it so that it do not clod; and in case she becomes dry, if there be need, boil as much milk as you can get from her with the leaves of lavender and spike, and bathe the udder with it warm, till it be broken, and the knobs and knots be dissolved: her water now must be white water, which is bran put into water; and give her sweet mashes; and a month after foaling, let her have a mash with some brimstone and savin in it, which will be a great preservation to the colt; after which, if she be moderately laboured at plough or harrow, both she and the colt will be the better, provided she be kept from raw meats while she remains in the stable, which will both increase her milk and cause her colt to thrive the better; and care must be taken not to suffer the colt to suck her when she is hot, lest you surfeit the colt.

Some are of opinion, that the winter-season is a very improper time for foaling, because of the coldness of the weather, and scarcity of grass, so that the mare must necessarily be housed and fed with hard meat, which will dry up her milk, and starve the foal: yet experience teaches us that notwithstanding all this, it is certainly the best time both for mare and foal too, being kept in a warm house; and as for her milk, she will have plenty, if well fed, and that more nourishing than what is got at grass, which will make him more lusty, of greater bone and stature, cleaner limbed, more neatly jointed and hoofed, and in much better liking, than the colt foaled in *May* or *June*, or any other of the hot months; and besides other inconveniencies by the colt's running along with the mare, he becomes so savage and wild, that if any infirmity seizes him, his own unruliness being so great, the cure may be very difficult; for infinite are the numbers that have perished in this state.

Now in case some time after the mare has taken horse, you are uncertain whether she be with foal or not, pour a spoonful of cold water or vinegar into her ear, and if she only shakes her head, it is a sign she is with foal; but if she shakes her head, body and all, it is a sign she is not; or if she scours, her coat grows smooth and shining, and that she grows fat, it is also a sign she holds.

In case you are desirous no mare should go barren, in

the month of *July*, or the beginning of *August*, get a mare or two that have not been covered the year before, and enforce them to be horsed; when they shall be ready to be covered, you must turn them, with some other which you esteem not as your best horse, among your stud of mares, and by his covering that mare or mares you turned in with him into the stud, it will cause the rest of them, if any of them have not conceived at their first coverings, to come to that horse again; and you will be sure to keep no more barren all the year, but have a colt of every mare, thought not of your best horse. You may suffer your horse to run amongst your mares three weeks or a month; but if you turn him into your stud, putting in no mare with him ready to be covered, he will at his first entering beat all the mares, and perhaps hurt those that had conceived before, and so do more hurt than good.

Some reckon the best receipt to bring a mare in season, and make her retain, is to give her to eat, for the space of eight days before you bring her to the horse, about two quarts of hemp-seed in the morning, and the same at night: but if she refuses to eat it, mix with it a little bran or oats, or else let her fast for a while; and if the stallion eats also of it, it will contribute much to generation.

It is a maxim, that a mare should never be horsed while she is bringing up her foal, because the foal to which she is giving suck, as well as that in her belly, will receive prejudice thereby, and the mare herself will be also sooner spent; but if you would have your mare covered, let it be seven or eight days after she has foaled, that she may have time to cleanse; and if it may be conveniently done, do not give her the stallion till she desires him, and increase, by all means possible, that passion, by strong feeding, *&c.*

Mares, beside the many distempers they are liable to in common with horses, and which will be found under their several names, have some others peculiar to their kind only, of which I shall speak, and their cure. If your mare be barren, boil a quantity of the herb agnus in the water she drinks; or stamp a handful of leeks with four or five spoonfuls of wine, to which put some cantharides, and strain them all together, with a sufficient quantity of water to serve her two days together, by pouring the same in her nature, with a glyster-pipe made for that purpose; and at three days end offer the horse to her, and if he covers her, wash her nature twice together with cold water; or take a little quantity of nitrum, sparrow's dung and turpentine, wrought together, and make like a suppository, and putting that into her nature it will do.

If you would have her fruitful, boil good store of mother-wort in the water she drinks.

If she loses her belly, which shews a consumption of the womb, give her a quart of brine to drink, having mug-wort boiled therein.

If through good keeping she forsakes her food, give her two or three days together, a ball of butter and agnus castus chopped together.

If she be subject to cast her foal, keep her at grass very warm, and once a week give her a good warm mash of drink, which secretly knits beyond expectation.

You are to observe, that mares go with foal eleven months and as many days as they are years old; as for instance a mare of nine years old, will carry her foal eleven months and nine days; so that you may order the covering of your mares, that their foals may be brought forth, if you will, at such time as there is abundance of grass. *See* STALLION *and* COLT.

MARK; a horse marks, that is, he shews his age by a black spot, called the bud or eye of a bean, which appears at about five years and a half, in the cavity of the corner teeth, and is gone when he is eight years old; then he ceases to mark, and we say, he has rased. *See* TEETH *and* RASE.

FALSE MARK, *i. e.* counter-marked.

MARKS [amongst Hunters], the foot-prints and treadings of wild beasts.

MARTERN, is about the bigness of a cat, having a longer body, but shorter legs, with a head and tail lik a fox; its skin is commonly brown, white on th throat, and yellowish on the back; their teeth are exceeding white, and unequal, being unmeasurably sharp; the canine teeth both above and below hang out very long. At one year old it is called a cub; at two a martern.

This, and the wild cat, are a sort of vermin which are commonly hunted in *England*, and are as necessary to be hunted as any vermin can be, for it is doubtful whether the fox or badger does more hurt than the wild cat, there being so many warrens every where throughout the kingdom of *England*, which are very much infested with the wild cat.

Experienced huntsmen are of opinion, that she leaves as good a scent, and makes as great a cry for the time, as any vermin that is hunted; especially the martern exceeds all other vermin for sweetness of scent, and her case is a noble fur.

The case of the wild cat is not so beautiful, but is very warm, and medicinal for several aches and pains in the bones and joints: also her grease is good for sinews that are shrunk.

These two chases are not to be sought for purposely, unless they are seen where they prey, so that they may go readily to them; but if a hound happens to cross him, he will hunt it as soon as any chase, and make a noble cry as long as they stand up; when they can do it no longer, they will take to a tree and so deceive the hounds; but if the hounds hold in to them, and will not give it over so, then they will leap from one tree to another, and make a great shift for their lives, with much pastime to the huntsman.

When they are killed, you must hold them upon a piked staff, and halloo in all your hounds, and then reward them with some meat, for the flesh of these vermin is bad for hounds.

MARTINGAL, a thong of leather fastened to one of the girths under the belly of a horse, and at the other end to the mussroll, to hinder him from rearing.

MASH, a drink given to a horse, made of half a peck of ground-malt put into a pail, into which as much

much ſcalding-hot water is poured as will wet it very well, when that is done, ſtir it about, till, by taſting, you find it as ſweet as honey; and when it has ſtood till it is lukewarm, it is to be given to the horſe. This liquor is only uſed after a purge, to make it work the better; or after hard labour, or inſtead of drink in the time of any great ſickneſs.

MASTIGADOUR, OR SLABBERING-BITT, is a ſnaffle of iron, all ſmooth, and of a piece, guarded with pater-noſters, and compoſed of three-halfs of great rings, made into demi-ovals, of unequal bigneſs, the leſſer being incloſed within the greateſt, which ought to be about half a foot high. A maſtigadour is mounted with a head-ſtall and two reins.

The horſe in champing upon the maſtigadour, keeps his mouth freſh and moiſt, by virtue of the froth and foam that he draws from his brain.

To put a horſe to the maſtigadour, is to ſet his croupe to the manger, and his head between two pillars in the ſtable.

Horſes that uſe to hang out their tongue, cannot do it when the maſtigadour is on, for that keeps their tongue ſo much in ſubjection, that they cannot put it out.

To MATCH, [amongſt Cock-maſters], to match cocks, is to ſee they be of an equal height, length and bigneſs in body.

To go to MATCH, [with Hunters]; a wolf at rutting-time is ſaid to go to match, or mate.

Of riding a Hunting-Match, or Heats for a Plate.

In order to ride to the beſt advantage, either a hunting-match, or three heats and a courſe for a plate,

The firſt thing requiſite is a rider, who ought to be a faithful one, in whom you can confide; and he ſhould have a good cloſe ſeat, his knees being held firm to his ſaddle-ſkirts, his toes being turned inwards, and his ſpurs outward from the horſe's ſides, his left hand govern the horſe's mouth, and his right commanding the whip; taking care, during the whole time of the trial, to ſit firm in the ſaddle, without waving, or ſtanding up in the ſtirrups, which actions do very much incommode a horſe, notwithſtanding the conceited opinion of ſome jockies, that it is a becoming ſeat.

In ſpurring his horſe, he ſhould not ſtrike him hard with the calves of his legs, as if he would beat the wind out of his body, but juſt turning his toes outwards, and bringing his ſpurs quick to his ſides; and ſuch a ſharp ſtroke will be of more ſervice towards the quickening of the horſe, and ſooner draw blood.

Let him be ſure never to ſpur him but when there is occaſion, and avoid ſpurring him under the fore-bowels, between his ſhoulders and girths, near the heart, (which is the tendereſt place of a horſe) till the laſt extremity.

As to the whipping the horſe, it ought to be over the ſhoulder on the near ſide, except upon hard running, and when you are at all, then ſtrike the horſe in the flank with a ſtrong jerk, the ſkin being tendereſt there, and moſt ſenſible of the laſh.

He muſt obſerve, when he whips and ſpurs his horſe, and is certain that he is at the top of his ſpeed, if then he clap his ears in his pole, or whiſks his tail, then he may be ſure that he bears him hard; and then he ought to give him as much comfort as he can, by ſawing his ſnaffle to and fro in his mouth, and by that means forcing him to open his mouth, which will comfort him and give him wind.

If in the time of riding there is any high wind ſtirring, if it be in his face, he ſhould let the adverſary lead, he holding hard behind him till he ſees an opportunity of giving a looſe; yet he muſt take care to keep ſo cloſe to him that his adverſary's horſe may break the wind from his, and that he, by ſtooping low in his ſeat, may ſhelter himſelf under him, which will aſſiſt the ſtrength of his horſe.

But, on the contrary, if the wind be at his back, he muſt riſe exactly behind him, that his own horſe may alone enjoy the benefit of the wind, by being as it were blown forward, and by breaking it from his adverſary, as much as poſſible.

In the next place, obſerve what ground your horſe delights moſt to run on, and bear the horſe (as much as your adverſary will give you leave) on level carpet ground, becauſe the horſe will naturally be deſirous to ſpeed him more freely thereon; but on deep earths give him more liberty, becauſe he will naturally favour himſelf thereupon.

If you are to run up hill, don't forget by any means to favour your horſe, and bear him for fear of running him out of wind; but if it be down hill, (if your horſe's feet and ſhoulders will endure it, and you dare venture your neck) always give him a looſe.

This may be obſerved as a general rule, that if you find your horſe to have the heels of the other, that then you be careful to preſerve his ſpeed till the laſt train-ſcent, if you are not to run a ſtraight courſe; but if ſo, then till the end of the courſe, and ſo to huſband it then alſo, that you may be able to make a puſh for it at the laſt poſt.

In the next place you are to acquaint yourſelf, as well as you can, of the nature and temper of your adverſary's horſe, and if he be fiery then to run juſt behind, or juſt cheek by joul, and with your whip make as much noiſe as you can, that you may force him on faſter than his rider would have him, and by that means ſpend him the ſooner; or elſe keep juſt before him, on ſuch a ſlow gallop, that he may either overreach, or by treading on your horſe's heels, (if he will not take the leading) endanger falling over.

Take notice alſo on what ground your opponent's horſe runs the worſt, and be ſure to give a looſe on that earth, that he being forced to follow you, may be in danger of ſtumbling, or clapping on the back ſinews.

In the like manner in your riding obſerve the ſeveral helps and corrections of the hand, the whip, and the ſpur, and when, and how often he makes uſe of them; and when you perceive that his horſe begins to be blown, by any of the former ſymptoms, as clapping down his ears, whiſking his tail, holding out his noſe like a pig, &c. you may then take it for granted that he is at the height of what he can do; and therefore in this caſe, take notice how your own rides, and if he runs more chearfully and ſtrongly, without ſpurring, then be ſure to keep your adverſary to the ſame ſpeed,

without giving him eafe, and by fo doing, you will quickly bring him to give out, or elfe diftance him.

Obferve at the end of every train-fcent what condition the other horfe is in, and how he holds out in his labour, of which you may be able to make a judgment by his looks, the working of his flank, and the flacknefs of his girths.

For if he looks dull, it is a fign that his fpirits fail him; if his flanks beat much, it is a token that his wind begins to fail him, and confequently his ftrength will do fo too.

If his wind fails him, then his body will grow thin, and appear tucks up, which will make his girths to the eye feem to be flack; therefore you may take this for a rule, that a horfe's wanting girting after the firft fcent, provided he were girt clofe at his firft ftarting, is a good fign; and if you find it fo, you need not much defpair of winning the wager.

After the end of every train-fcent, and alfo after every heat for a plate, you muft have dry ftraw and dry cloths, both linen and woollen, which have been fteeped in urine and falt-petre a day or two, and then dried in the fun, and alfo one or two of each muft be brought into the field wet; and after the train has been ended, two or three perfons muft help you, and after the groom has, with a knife of heat, (as it is called by the Duke of *Newcaftle*) which is a piece of an old fword-blade, fcraped off all the fweat from the horfe's neck, body, *&c.* then they muft rub him well down dry, all over, firft with the dry ftraw, and then with dry cloths, whilft others are bufy about his legs, and as foon as they have rubbed them dry, then let them chafe them with the wet cloths, and never give over till you are called by the judges to ftart again.

This will render his joints pliant and nimble, and prevent any inflammation which might arife from an old ftrain.

The next thing to be regarded, are the judges or triers office, who are to fee that all things are ordered according to the articles agreed on, which to that end ought to be read before the horfes ftart.

That each trier on whofe fide the train is to be led, according to the articles give directions for its leading, according to the advice of the rider, or his knowledge of the nature and difpofition of that horfe on which fide he is chofe.

That each trier be fo advantageoufly mounted, as to ride up behind the horfes (but not upon them) all day, and to obferve that the contrary horfe ride his true ground, and obferve the articles in every particular, or elfe not permit him to proceed.

That after each train-fcent be ended, each trier look to that horfe againft which he is chofen, and obferve that he be no ways relieved but with rubbing, except liberty on both fides be given to the contrary.

As foon as the time allowed for rubbing be expired, which is generally half an hour, they fhall command them to mount, and if either rider refufe, it may be lawful for the other to ftart without him; and having beat him the diftance agreed on, the wager is to be adjudged on his fide.

The triers fhall keep off all other horfes from croffing the riders; only they themfelves may be allowed to inftruct the riders by word of mouth how to ride, whether flow or faft, according to the advantages he perceives may be gained by his directions.

If there be any weight agreed on, they fhall fee that both horfes bring their true weight to the ftarting place, and carry it to the end of the train, upon the penalty of lofing the wager.

The fame rules are to be obferved, efpecially this laft, by thofe gentlemen who are chofen to be the judges at a race for a plate, only they ufually ftay in a ftand, that they may the better fee which horfe wins the heat.

In running for a plate, there are not fo many obfervations to be made, nor more directions required, than what has been already given; only this, if you know your horfe to be tough at bottom, and that he will ftick at mark, to ride him each heat according to the beft of his performance, and avoid as much as poffible either hiding at any particular horfe, or ftaying for any, but to ride each heat throughout with the beft fpeed you can.

But if you have a fiery horfe to manage, or one that is hard mouthed and difficult to be held, then ftart him behind the reft of the horfes, with all the coolnefs and gentlenefs imaginable, and when you find that he begins to ride at fome command, then put up to the other horfes, and if you find they ride at their eafe, and are hard held, then endeavour to draw them on fafter; but if you find their wind begins to rake hot, and that they want a fob, if your horfe be in wind, and you have a loofe in your hand, keep them up to their fpeed till you come within three quarters of a mile of the end of the heat, and then give a loofe and pufh for it, and leave to fortune and the goodnefs of your horfe, the event of your fuccefs.

When either your hunting-match, or the trial for the plate is ended, as foon as you have rubbed your horfe dry, clothe him up and ride him home, and the firft thing give him the following drink to comfort him:

Beat the yolks of three eggs, and put them into a pint and a half of fweet milk, warm it lukewarm, put to it three pennyworth of faffron, and three fpoonfuls of fallad-oil, and give it him in a horn.

Having done this, drefs him flightly over with the curry-comb, brufh, and woollen cloth; bathing the place where the faddle ftood with warm fack, to prevent warbles; wafhing the fpurring places with urine and falt, and anoint them with turpentine and powder of jett, mixed together; litter the ftable well, clothing him up as quick as poffible, and let him ftand for two hours.

Feed him with rye-bread, with a good mafh, giving him his belly full of hay, and what corn and bread he will eat.

Bathe his legs well with urine and falt-petre, leave him corn in his locker, and fo let him reft till the next morning, at which time order him as before directed in his days of reft.

How to order a Horfe for a Match or Plate.

When you have either matched your horfe, or defign to

to put him in for a plate, you ought to consider that you should reserve a month at least, to draw his body perfectly clean, and to refine his wind to that degree of perfection that is capable of being attained by art.

Take an exact view of the state of his body, both outwardly and inwardly, whether he be low or high in flesh, or whether he be dull and heavy when abroad, and if this has been caused by too hard riding, or by means of some grease that has been dissolved by hunting, and has not been removed by scouring.

If he appear sluggish and melancholy from either of these causes, then give him half an ounce of diapente in a pint of good old *Malaga* sack, which will both cleanse his body and revive his spirits.

For the first week, feed him continually with bread, oats, and split beans, giving him sometimes the one and sometimes the other, according to what he likes best, always leaving him some in his locker to eat at leisure when you are absent; and when you return at your hours of feeding, take away what is left, giving him fresh, till you have made him wanton and playful.

To this purpose take notice, that though you ride him every day morning and evening, on airing, or every other day on hunting, yet you are not to sweat him, or put him to any violent labour, the design of this week's ordering being to keep him in wind and breath, and to prevent pursiveness.

But take notice of this, that your oats, beans and bread, are now to be ordered after another manner than what they were before; for the oats must be well dried in the sun, put into a clean bag and soundly beat, with a flail or cudgel, till you think they are hulled, then take them out of the bag and winnow them clean, both from hulls and dust, and give them to your horse as occasion requires.

After the same manner must you order your beans, separating them from the hulls, which are apt to breed the glut, which must either be thrown away, or given among chaff to some more ordinary horse.

The bread, which was only chipt before, now the crust must be cut clean off, and be otherwise disposed of, it being hard of digestion, and will be apt to heat and dry the horse's body; and besides, you must make a finer bread than before, as follows:

Take two pecks of beans, and a peck of wheat, let them be ground together, but not too fine, to prevent too much bran being in the bread; dress one peck of the meal through a fine range, and knead it up with new ale yeast, and the whites of a dozen new-laid eggs; bake this in a loaf by itself, but dress the rest of the meal through a boulter, kneading it only with ale and yeast, and use it in all other points as the former: the peck loaf is to be given the horse when you set him, and the other at ordinary times.

This bread assists nature, and much increases the strength, courage, and wind of the horse (provided there be added to it true labour) as any bread whatsoever.

Having treated of the condition of those horses which are melancholy and low of flesh, I shall now speak of those which are brisk and lively: if your horse when you lead him out of the stable, will leap and play about you, you must not only omit giving him the scouring of sack and diapente, but any other whatsoever, for there being no foul humours, nor superfluous matter left in his body, for the physic to work upon, it will prey upon the strength of his body, and by that means weaken it.

If your horse be engaged in a hunting-match, you must sweat him twice this week but not by hunting him after the hare, but by train-scents, since the former on this occasion may prove deceitful: for though the hounds should be very swift, yet the scent being cold, the dogs will very often be at fault, and by that means the horse will have many sobs: so that when he comes to run train-scents in earnest, he will expect ease for his wind.

Therefore lead your train-scents with a dead cat, over such grounds as you are likely to run on, and best agree with the humour of your horse; also choose the fleetest hounds you can get, and they will keep your horse up to the height of his speed.

As to the number of train scents that you should ride at a time, they are to be ordered according to the match you are to run, or rather according to the strength of your horse, and ability for performing his heats; for if you labour him beyond his strength, it will take him off his speed, weaken his limbs, and daunt his spirit.

If you give him too little exercise, it will render him liable to be pursive, and full of ill humours, as glut, &c. and incline him to a habit of lazinesS, so that when he comes to be put to labour beyond his usual rate, he will grow restive and settle.

But so far may be said by way of direction, that if you are to run eight train-scents, and the straight course, more or less, you are to put him to such severe labour, not above twice in the whole month's keeping.

And if it be in the first fortnight it will be the better, for then he will have a whole fortnight to recover his strength in again; as for his labour in his last fortnight, let it be proportionate to his strength and wind; sometimes half his task, and then three quarters of it.

Only observe, that the last trial you make in the first fortnight, be a train-scent more than your match, for by that means you will find what he is able to do.

As to the proportion of his exercise twice a week will be sufficient to keep him in breath, and you will not diminish or injure his vigour.

But if your hunting-match be to run fewer trains, then you may put him to his whole task the oftener, according as you find him in condition; only observe, that you are not to strain him for ten days at least, before he rides his match, that he may be led into the field in perfect strength and vigour.

If you design your horse for a plate, let him take his heats according to direction, only let him be on the

place, that he may be acquainted with the ground; and as for the hounds you may omit them, as not being tied up to their speed, but that of your adversary's horse.

As to the number of heats, let them be according to what the articles exact; only observe, that, as to the sharpness of them, they must be regulated according to his strength, and the goodness of his wind.

When you heat him, provide some horses upon the course to run against him; this will quicken his spirits and encourage him, when he finds he can command them at his pleasure.

And here too you must observe the rule, not to give the horse a long heat for ten days or a fortnight before the plate be to be run for; and let the last heat you give him before the day of trial be in all his cloaths, and just skelp it over, which will make him run the next time the more vigorously, when he shall be stript naked, and feel the cold air pierce him.

During this month, and on his resting-days, and after his sweats on heating-days (if there be any occasion for sweating him) you must observe the same rules which have been given for the first week of the third fortnight's keeping, only you must omit all scourings but rye-bread and mashes, since your horse being in so perfect a state of body, has no need of any, except you shall know there is occasion; and if the horse proves thirsty, about eight or nine o'clock at night, you may give him the following julep, to cool him and quench his thirst.

Make two quarts of barley water, three ounces of syrup of violets, two ounces of syrup of lemons, and having mixed them together, give them the horse to drink, and if he refuses, place it so that he may not throw it down, and let it stand by him all night.

During the last fortnight, you must give him dried oats that have been hulled by beating, and having washed half a strike of oats in the whites of a dozen or twenty eggs, stir them together, letting them lie all night to soak, spread them abroad in the sun the next morning, till they are as dry as they were at first, and so give them to your horse: when these are spent, prepare another quantity after the same manner. This food is light digestion, and very good for his wind.

You must order his beans as before, but not give them so often, if he will eat his oats without them: as for his bread this time, make that of three parts wheat to one of beans, and order it as before directed.

If you find your horse inclinable to be costive, give him oats washed in two or three whites of eggs and ale beaten together, to cool his body and keep it moist.

Give him no mash for the last week, only the barley-water before directed, but let him have his fill of hay, till a day before he is to ride the match, when you may give it him more sparingly, that he may have time to digest what he eas eaten, and then and not before you may muzzle him with your cavesson; and be sure that day, and not till the morning he is led out, to feed him as much as possible, for such a day's labour will require something to maintain strength.

Therefore in the morning before you are to lead out, give him a toast or two of white bread steeped in wine, which will invigorate him, and when you have done lead him out into the field.

But if you are to run for a plate, which commonly is not till three o'clock in the afternoon, by all means have him out early in the morning to air, that he may empty his body, and when he is come in from airing, feed him with toasts in wine; considering, that as too much fulness will endanger his wind, so too long fasting will cause faintness.

When he has eaten what you thought fit to give him, put on his cavesson, and having afterwards well chafed his legs with piece-grease and brandy warmed together, or train oil (which likewise ought to be used daily at noon, for a week before the match, or longer, if you see cause) shake up his litter and shut the stable up close, taking care that there is no noise made near him, and let him rest till the hour comes that he is to go out into the field.

MAY-FLY, an insect so called, because it is bred in the month of *May*, of the water cricket, which creeping out of the river, turns to a fly. It usually lies under the stones, near the banks, and is a good bait for some sort of fish. *See* ANGLING.

MEASLES IN SWINE. This distemper is caused by surfeiting, through unwholesome feeding, and is discovered by the coming of knots or pimples under the tongue. Remedy.

Wash the swine with brine, or fair water, pretty warm, bruise garlic, to which add lemon-peel, steep it in very strong vinegar, and give it him to drink. Or,

Dip a brush in cold water and rub him over, against the hair, as hard as may be, to stir the humour; then boil a handful of baum, and as much of parsley roots and rue, or carduus, in a gallon of clear water, with two ounces of alum and a handful of bay salt; keep him thirsty, and then give it him with a little wheat-bran, that he may swallow it easy.

MEAT FOR HOUNDS. The following is by Mr. BECKFORD strongly recommended.

Mix an equal quantity of oatmeal and barley; let the oatmeal be boiled half an hour, and then mix the barley with it in the copper.

MEDICINE; the following is in high estimation for most diseases incident to cattle.

Treacle one quarter of a pound, hempseed a handful, elder leaves, ivy leaves, and featherfew, about a handful of each, loam a lump as big as a large egg, as much bay salt, and a little soot; put them in man's urine and stir the whole well together; make it warm, and give to any beast three spoonfuls of it, and after that give them a little tar.

Some give them in drink the dried flowers of wormwood mixed with salt.

MELANCHOLY IN ASSES: This is a disorder with which the ass is much afflicted, which makes him heavy, lumpish, and breathe with difficulty. Cure.

Take an ounce of liquorice, a handful of centaury, and three or four dried figs; boil them well in a pint

pint and a half of water, and give the liquid part, strained out, warm to drink in the morning fasting, and if there is occasion, repeat it twice or thrice.

MELANCHOLY IN HORSES, to purge;

Take scammony a drachm, the juice or seeds of black hellebore two ounces; dissolve the former in and mingle the latter with a pint of warm ale, and give it fasting.

MELCERIDES IN HORSES, tumours so called, from their resemblance to a honey-comb.

They attack the joints, and send forth a glewy matter like honey.

The way to cure them, is to burn them with red hot irons, in order to bring away all the matter, and to heal the ulcers with wax melted with hog's grease, and to wash them with cold, but rather with sea-water, if it can be got. Some recommend the burning them with brass plates.

MELLIT, a distemper in a horse, being a dry scab growing upon the heels of his fore-foot, which may be cured after the following manner:

Take common honey, half a pint, black soap a quarter of a pound, mingle them well together, adding four or five spoonfuls of vinegar, and the same quantity of alum, finely powdered, soaked in a hen's egg, with two spoonfuls of fine flour. Let all be well mixed together, clip away the hair from the part affected, and apply it to the sorrance, after the manner of a plaister, and let it remain five days.

Then take it off, and having washed all the leg, foot, and sore, with broth of powdered beef, rope up his legs with thumbands of soft hay, wetted in the same liquor, and it will effect a cure.

Whenever you dress the sorrance, do not omit the pulling off the scab, or any crusty substance that may be upon the sore, and also to wash it clean.

MELT, ON THE HEEL, IN HORSES, this is no other than a dry scab, growing on the heel, occasioned sometimes by the horses' standing wet and dry over long or unseasonably; and at other times, through corrupt blood settling there; remedy.

Take of black soap a quarter of a pound, honey the like quantity; dissolve them in a pint of vinegar, then add the powder of burnt alum two ounces, and rye-meal a like quantity; wash the sorrance well with water and salt, and then spread the before-mentioned materials, and apply them plaister-wise, having first taken off the scurf or scab as clean as may be; and so for a week together continue the supplement. Or,

Take three ounces of castile-soap, a pound of *English* honey, alum two ounces, and of lime juice or verjuice a quarter of a pint, with half a handful of bean flour, incorporate them over a gentle fire, and having reduced them to a convenient thickness, bind a part of it with leather or thick linen upon the place grieved, suffering it, without renewal, to continue there for the space of five days; and between each renewal, wash the place well with beef broth, keeping his leg moist and roped, for some days after.

MELT IN SWINE, this disease is common among hogs, and often fatal. The creature appears giddy, and runs always on one side, lying also on that side, and rubbing it against walls. He pines away soon after, neglects his food, and shews the greatest uneasiness. Cure.

Bruise some woody nightshade, and press out the juice: to a pint of it, put half a pint of juice of wormwood, and a quarter of a pint of the juice of pennyroyal. Put half a pint of this into a mess of victuals once every day, till he is well, which will be known by his appetite.

MERLIN, a sort of hawk the least of all birds of prey, which resembles the haggard falcon in plume, fear of the foot, beak, and talons, and is much like her in condition.

MES-AIR is a manage half *terra a terra* and half corvets.

MESHES, the opening and vacancies in nets, or networks.

MEW, a place where a hawk is set during the time she raises her feathers.

MEWING (with Hunters) a term used of a stag, *&c.* shedding his horns: an old hart casts his horns sooner than a younger one, which is commonly in the months of *February* and *March;* but it is to be observed, that if a hart be gelded before he has a head he will never bear any, and if he be gelded after he has a head, he will never mew or cast off his horns; again, if he be gelded when he has a velvet head, it will always be so, without fraying or burnishing.

These beasts have no sooner cast their heads, but they immediately withdraw into thickets to hide themselves, in such convenient places where they may have strong feeding and good water; but young harts do never betake themselves to thickets till they have borne their third head, which is in the fourth year.

After mewing they will begin to button, in *March* or *April;* and as the sun grows strong, and the season of the year puts forth the crop of the earth, so will their heads grow, so as to be summed full by the middle of *June*.

MICE, AND RATS, TO DESTROY.

Fill an indifferent pot with the foot or dross of oil, and set it in a convenient place in their haunt; about the middle of the place, strew about it soap boilers pot ashes, and when the scent of the oil draws them to the pot, the scent of the ashes will so stupify them, that they will lie on the floor rolling, that coming in any time you may take them up or destroy them. The smell of assafœtida will likewise drive them out of a house or granary: hemlock seed put in their holes, if they eat it, destroys them. Or,

Mix unslaked lime and oatmeal together, or wheat-flour, and lay on bits of chips where they come.

MIDDLE-TEETH OF A HORSE, are the fore teeth that come out at three years and a half, in the room of other four foal-teeth, seated between the nippers and the corner teeth, from which situation they derive the title of middling.

There is one above and one below, on each side of the jaws. *See* TEETH.

MILK,

MILK, TO BREED, IN COWS;

If your cow chance to have a calf and be poor, or to calve before her time, and hath not milk for to keep her calf, you must give her good store of mashes of malt milk-warm; also give her every morning and evening a quart of ale, made into a posset, but take off the curd, and put in aniseeds, cummin-seeds, lettuce-seeds, and coriander-seeds, all made into powder, and blend them with the posset; let them stand three hours blended together, and then give it the beast for four days one after another, and by often drawing of her paps, her milk will be sure to increase in a short time.

MILK IN EWES, to increase;

If you find their udders drying up, or that they give but little milk, change their pasture to such as has short and sweet grass, and better than that from which you remove them; and if the ground has a conveniency, drive them sometimes on the hills, and at others into plain ground or valleys, for where the grass is sweetest and shortest they will eat with the best appetite: and when you bring them home mingle with their grass or short hay dill vetches and aniseeds, and this will restore and increase their milk.

MILT-PAIN IN SWINE. When this pain is contracted, you will perceive the hog to go reeling and sideling. To cure which,

Boil wormwood and honey in fair water, and so give it to drink.

The MINNOW, is a fish without scales, and one of the least of fishes, but (in the opinion of some) for excellency of meat, he may have been compared to any fish of the greatest value and largest size: the spawners are usually full of spawn all the summer long, for they breed often, as it is but necessary, being both prey and baits to other fish.

They come into the river generally about *March* and *April*, and continue there till the cold weather strikes them into their winter quarters again.

This fish is of a greenish colour, or wavy sky-coloured, his belly is very white, but his back is blackish; he will bite sharply at a worm.

Anglers find them oftener than they desire; they seldom frequent deep places. It is a fish not at all curious of his feeding, for any bait pleases him, if he can but swallow it; he will strain hard for what he cannot gorge.

The chief food he loves, is a small red worm, wasps, or cad-baits.

MOLES IN THE FIELDS, may be destroyed by taking a head or two of garlic, onion, or leek, and put into their holes, and they will run out as if frighted, and you may with a spear or dog take them.

Or, pounded hellebore, white or black, with wheat flour, the white of an egg, milk and sweet wine or metheglin, make it into a paste, and put pellets as big as a small nut into their holes, they eat it with pleasure, and it will kill them.

In places you would not dig nor break much, the fuming their holes with brimstone, garlic, or other unsavoury things, drives them away; and if you put a dead mole into a common haunt it will make them absolutely forsake it.

Or, take a mole spear or staff, and where you see them cast, go lightly; but not on the side betwixt them and the wind, lest they perceive you; and at the first or second putting up of the earth, strike them with your mole-staff downright, and mark which way the earth falls most: if she casts towards the left hand, strike somewhat on the right hand, and so on the contrary to the casting up of the plain ground, strike down, and there let it remain: then take out the tongue in the staff, and with the spattle or flat edge dig round about your grain to the end thereof, to see if you have killed her; and if you have missed her, leave open the hole, and step aside a little, and perhaps she will come to stop the hole again, for they love but very little air, and then strike again; but if you miss her, pour into her hole two gallons of water, and that will make her come out for fear of drowning. Mind them going out of a morning to feed, or come home when fed, and you may take a great many.

MOLTEN GREASE, is a fermentation or ebullition of impure humours, which precipitate and disembogue the guts, and oftentimes kill a horse.

This disease does not commonly seize upon any but over-fat horses, over-rid in hot-weather. *See* GREASE.

MONTOIR, OR HORSE-BLOCK, is a word derived from *Italy*, where the riding-masters mount their horses from a stone as high as the stirrups, without putting their foot into the stirrups.

In *France* no such thing is used, but yet the word montoir is there retained, and signifies the poise or rest of the horseman's left foot upon his left stirrup.

MONTOR A DOS, OR, A POIL; a *French* expression, signifying, to mount a horse bare backed, or without a saddle.

MOON-EYES; a horse is said to have moon-eyes when the weakness of his eyes increases or decreases, according to the course of the moon; so that in the wane of the moon his eyes are muddy and troubled, and at new moon they clear up, but still he is in danger of losing his eye-sight quite. *See* EYES OF A HORSE.

MOOR's HEAD, implies the colour of a *Roan* horse, who besides the mixture or blending of a grey and a bay, has a black head, and black extremities, as the mane and tail. *See* ROAN.

MORTIFICATION. A mortification may happen on any part of the body, and in any age: but if aged horses are the subjects they rarely recover.

A mortification in its beginning is called a gangrene; its signs are a sudden, but a violent inflammation, with pain; a deep red colour inclined to a purple or a lead-colour, &c. to black.

On the first appearance of these symptoms, make scarifications to the quick, then rub the part with the following embrocation:

Take

Take oil of turpentine, four ounces, tincture of myrrh and aloes, one ounce; mixed.

Or, instead of this embrocation, rub the part with spirit of wine.

Give one of the following balls three times a day:

Take of Peruvian-bark, four ounces; Virginian snake root, two ounces; camphor, two drachms; mix them well, and make them into four balls.

MOTION; this horse has a pretty motion.

This expression implies the freedom of the motion of the fore-legs, when a horse bends them much upon the manage; but if a horse trots quite out, and keeps his body straight, and his head high, and bends his fore-legs handsomely, then to say he has a pretty motion with him, implies the liberty of the action of the fore-hand.

MOURNING OF THE CHINE. *See* CHINE, MOURNING OF.

MOUTH OF A HORSE, should be moderately well cloven, for when it is too much, there is more difficulty to bitt a horse so as that he may not swallow it, as horsemen term it.

And if he has a little mouth, it will be difficult to get the mouth of the bitt rightly lodged therein.

A horse, to have a good mouth, should have a well raised neck, and if it be somewhat large and thick, it ought to be at least well turned, his reins strong and well shaped, and legs and feet likewise.

If all these prove right, no doubt but the horse has a very good mouth; but if his jaw-bones be too close, and he have also a short and thick neck, so that he cannot place his head right, his having a good mouth will avail but little, because no use can be made of it.

The compliance and obedience of a horse, is owing, partly, to the tender or quick sense of his mouth, which makes him afraid of being hurt by the bitt, and partly by the natural disposition of his members, and his own inclinations to obey.

The mouth is called sensible, fine, tender, light, and loyal.

Your horse has so fine a mouth, that he stops if the horseman does but bend his body behind, and raise his hand, without staying for the pull or check of the bridle.

A mouth is said to be fixed and certain, when a horse does not chack or beat upon the hand.

A fresh, foaming mouth.

A strong, desperate, spoiled mouth; a false mouth is a mouth that is not at all sensible, though the parts look well, and are well formed.

A mouth of a full *appui*, or rest upon the hand, is one that has not the tender nice sense of some fine mouth, but nevertheless has a fixt and certain rest, and suffers a hand that's a little hard, without chacking or beating upon the hand, without bearing down or resisting the bitt, insomuch that he will bear a jerk of the bridle without being much moved.

If you go to the army provide yourself a horse with a mouth that bears a full rest upon the hand, for if you take one of a fine, nice, tender mouth, and another horse comes to shock or run against him in a fight, he will be apt to rise upon his two hind feet, which a horse of a harder mouth would not do. *See* APPUI.

A mouth that bears more than a full rest upon the hand, implies, a horse that does not obey but with great difficulty.

You will readily stop this horse, for his mouth is above a full *appui* upon the hand. *See* APPUI.

Disorders in the Mouth of a Horse, viz. the *Lampas*, from the Latin *Lampascus*, is an inflammation and tumour of the first bar of a young horse's mouth, adjoining the upper fore-teeth, which prevents his chewing. LA FOSSE and BRACKEN were in an error to deny the existence of this inconvenience. GIBSON asserts that burning and usual repellents are apt to prevent a discharge, and prejudice the eyes, but it is advisable to be deferred a week, giving during the interval scalded mashes and warm gruel, and bleeding if indicated; should the inflammation still continue, cauterize the tumid parts lightly, without penetrating deep enough to scale off the thin bone subjacent of the upper bars. Wash with salt and water first, and afterwards heal with a mixture of *French* brandy, *Red Port* wine, and honey.

Relaxation and Swelling of the Palate from Cold. Use the above mixture, with a little addition of pepper, ginger, or spirit of sal ammoniac.

Bloody Chinks, or Chops in the Palate, from thistles, whins, or other prickly feed. Examine and wash with salted water, or salt and vinegar, using the mixture afterwards, From neglect, the roof of the mouth may be inflamed and ulcerated, puncture with a small pointed cautery.

Giggs, Bladders, or Flaps in the Mouth, these are the old terms for soft tumours, or pustules with black heads, growing in the inside of the lips, level with the great jaw-teeth; in some cart-horses they have been known to equal the size of a walnut; and at any size are painful, and prevent mastication. Draw out the tongue, and use the knife or cautery, cleansing and healing as above. The *Camery* or *Frounce*, or small indurated tumours upon the palate, cure as above.

Barbs or *Pups*, are small excrescences under the tongue, which appear by drawing it aside; when preternaturally enlarged, cut them close.

Canker in the Mouth, or rather ulcers with little white specks proceeding from gigs and warts neglected; the cautery moderately heated is perhaps the best remedy: it is supposed the mixture with the addition of sal ammoniac, sharp enough, but if not, apply several times a day, Egyptiacum and tincture of myrrh, sharpened with oil of vitriol; or, sublimate water; or, burnt alum, honey, and tincture of roses.

Hurts in the Tongue and Mouth, from sharp or heavy bitts. Touch several times a day with the first mixture, to which tincture of myrrh may be added, proceeding with the sharper applications should they be necessary. Examine the jaw-bone, which is too often injured likewise, carefully removing any splinters. The galling of the bitts and trappings is frequently the occasion of those many instances we have of horses breaking away in single harness. Very frequently the brydoon is so tight, that the horse's jaws are drawn up as if with a pulley,

pulley, the animal half-choked, and kept in constant pain. Frequently in the change of a horse, no care is taken to change the bitt, which if not sufficiently wide, holds the mouth perpetually screwed up as in a vice. It is a material part of the duty of grooms and horse-keepers, often to inspect the inside of the mouths of their horses.

Wolves Teeth are said to be two small superfluous ones, growing in the upper jaw next the grinders, and to be very painful to the horse; it was the old practice to loosen and wrench them out with a mallet and carpenter's gouge; by which rough operation the jaw was often materially injured; granting the necessity of their extraction, it behoves the veterinary surgeon to furnish a milder and safer method. In general, all teeth of irregular growth, whether inwards or outwards, which, during mastication, prick and wound either the tongue, gums, or lips, are styled wolves teeth. The upper teeth of old horses sometimes over-hang the nether so far, as to wound the lips. In every case of this kind, the file is the most proper instrument; first a rough, then a smooth or polishing one, the mouth clean washed after the operation, with salted water warm. For loose teeth, the gums being swollen, puncture with a lancet, and wash with a decoction of oak-bark, honey, and sage, adding a small quantity of distilled vinegar.

MOUTH, HEAT IN, IN HORSES, this disorder is accompanied with dryness, and proceeds from the heat of the stomach, by surfeits, over-heating, or a consuming quality; and if not timely taken notice of, produces the infectious humour that creates the canker.

Bleed the veins in the lips, which you may cause to appear by bending them the contrary way; and then wash them with salt, and vinegar, giving the horse water to drink wherein coltsfoot has been boiled, or fenugreek-seed, with his provender.

MULE, is of two sorts, the one engendered of a horse and a female ass, and the other of a male ass and a mare.

The first kind are generally very dull, as partaking too much of the ass, nor are they so large as the second, for which reason the latter are much more used and propagated.

As they are a very useful creature, handsome of shape, and good for journeys and many labours, so they are much esteemed and taken care of in other nations, and might be improved here to better advantage than they are, being of an easy gentle nature, and for the easiness of their pace most proper for women to ride on. They are cheap kept, and will travel very far in a day, and that with a spare diet.

These creatures breed not of themselves because they are got of different kinds and disagreeing seeds, as of an ass or horse, or an ass leaping a mare; and the latter of these produces the best, because the mare being larger, is more capable of giving the foal nourishment and strength, to grow up and thrive the better.

The ass stallion must be chosen large and well coloured, and not above three years old: and the mare not of the largest size, for that will hinder the performance: let her be under four years old; and when she has conceived she will go eleven months, or somewhat more sometimes, and sometimes bring forth sooner. During the time of her going with foal, she must be gently used and well fed, moderately laboured, but rest when near the time of her foaling.

How to make the Mare take the Ass, and how to order her in Foaling, &c.

If you find an unwillingness in the mare to receive the ass-stallion, you must at first put an indifferent ass colt to woo her, that if she at the first onset beats him, it may be no manner of discouragement to the stallion you intend; and when he has tired her out with wooing, she will yield to him that is last put to her; but it must be a young mare that has never been covered by a horse, for else she will not suffer the ass to cover her, unless very aged, which is not to the purpose.

When you perceive she has been well covered, put the ass away, lest by often leaping he makes her miscarry. Use her as I have intimated; gently for some time, and then let her labour be but indifferent; keep her high, and when near foaling, let her rest in good housing or pleasant pasture, as season requires, but not a place where she may leap and be hurt by straining, or cause a miscarriage, or bruise the foal in her.

When she has foaled, take the colt from her, and put it to a milch mare in a dark place till she becomes acquainted with it, and then you may let her run with it in any pleasant pasture till such time as it is fit to be weaned; after weaning give it milk for some time that it may not pine away.

Of Housing and Ordering in Riding.

Since these creatures are more tender than either horse or ass, they must not be kept abroad in wet or cold weather, but lodged in warm litter, and not backed, or put to hard labour before three years old, for fear of stunting them, or causing diseases. They are very long lived, if we credit PLINY, for he allows them to live fifty years. They may be either rid or put to plough, and are serviceable in many cases, but are not over strong, therefore too hard labour destroys them.

MULES, *see the Article* SCRATCHES IN FARRIERY.

MURRAIN IN CATTLE, this disease cometh several ways; first it comes from rankness of blood or feeding; from the corruption of the air, or the infection of other cattle. You may find this disease by their carriage, that is, they will foam at the mouth, and blow very thick and short; their heart and lights will beat very sore, and sometimes their face and chaps will swell, and their eyes water.

First let all your beasts blood, both sick and sound, and give to the sick some rue, fetherfue, sage, hyssop, thyme, marjoram, marigolds, fennel, tansey, lavender, and spike, of every one a small handful: boil all the herbs in spring water, boil them from a gallon to a quart, and then strain the liquor forth; put thereto for every beast a pint of strong ale, and add to the juice and ale some long pepper and green aniseeds, pease, bay-salt, treacle, and liquorice-powder, and butter. Pound all these spices, and put them to the juice of the

the herbs, and so give to the sick a full pint, but to the sound half a pint. Or,

First, you must take for every beast a quart of old wash, and a good quantity of hens dung, and lay the hens dung to steep eight or ten hours: then strain the dung forth, and break to every beast two rotten eggs into the aforenamed juice, and give to every one two pennyworth of spikenard; then blend all these together, and give it the beast: but first let blood, both sick and sound, and separate the sick from the sound. Bleed and drench both horse and swine, for they are both apt to take the disease. Bury the dead carrion deep in the ground, that the hogs cannot pull it forth to feed on it, for they are those that carry the disease from one place to another; and be careful where you lay the murrain hide of a horse, or how you take off the hide while the beast is hot, for it is infectious: the safest way is to bury the beast, hide and all. Or,

Take fennel seed, the roots of angelica, and sea thistle; stamp and infuse them over a gentle fire, with red-wine and ale; give the liquid part hot, and keep the beast warm, and two or three hours after make him a mash of wheat, boiled in beer.

MURRAIN, IN GOATS, this disorder is very fatal to them, making them suddenly drop down dead, when they seem healthy: therefore it is fit you keep the following remedy by you, for fear of surprise, viz.

Take baum, vervain, and rue, of each a small handful, the husks of green walnuts, if they may be had, or else the leaves or bark of that tree: boil them in cyder or verjuice, which you can soonest get, strain out the liquid part, and infuse mithridate or London treacle, half an ounce into a quart, so give a pint warm morning and evening. But to have this in readiness for more than one or two, when you see this distemper begin, you make a greater quantity, and bottle it up for use.

MURRAIN, IN SHEEP, the cure:

Make holes in their ears with an awl, and put in the root of sweet-wort; then give an ounce of the oil of turpentine in a quarter of a pint of white wine, (or for want of it, in vinegar) and sprinkle the sheep with water wherein fennel seeds have been boiled: and this may be safely given and used for the murrain of the lungs, occasioned by extreme drought, or want of water in the hot seasons.

MURRAIN, IN SWINE: this disorder arises from bad food, and want of water. The first sign of it is a running of the eyes, the head swells, and the hog carries it on one side; after this he grows hot and weak, refuses his victuals, and, if not cured, will pine away till he dies.

Dissolve in a pint of ale half an ounce of Venice treacle, an ounce of bole ammoniac, and half a drachm of saltpetre: add to this four ounces of powder of grey ground liverwort. Mix it all with a good hot mess of victuals, and give it early in the morning. When the hog has eat as much as he likes, take it away; then two or three hours after set it before him again, and give him no other food. This will bring him to be much better in a few days; and after that, a smaller quantity of medicine must be mixed with his victuals, but he must have some of it in all he eats, till perfectly recovered. Or,

Take the roots of garden or water lilies, mix a quarter of the juice with twice as much sallad oil, and an ounce of oil of turpentine, and as much turmerick finely beaten in powder: give it him in cold water, about a pint; and, if he grows hot and feverish upon it, bleed him under the tongue, ears, and tail; boil mallows and groundsel in his wash, and add a little bay salt.

MURRAIN-WATER, IN CATTLE, &c. This disease comes from rankness of blood, and chiefly it takes those that are young betwixt one year old and three. This disease is easy to find out, for they swell on the back and both sides of the chine, and if they have not present help, they will die; the hide will be puffed up to the shoulder-blade on both sides.

You must first let them blood in the neck, and give them some fenugreek, turmerick, long pepper, and spikenard, all made into powder, and give it them in ale or beer milk-warm. And for the swelling on the back, you must take three handfuls of salt, a pint of spring-water, and a pint of white-wine vinegar, also a little alum, but pound it, and put them all together, beating it with a slice till it be white like milk; then bathe the swelled places very well, and it will dry up the rheum.

And for the preventing of this disease, bleeding is best in time; also, if they be swelled very much on the back, rowel them on both sides behind the shoulder-blade against the heart, and put in some hair to keep the holes open, and they will amend presently.

MUTE, (amongst Hunters) hounds or beagles are said to run mute, when they course along without opening or making any cry.

MUTE, OR ORDURE, dung, more especially of birds.

NAG, LITTLE NAG, OR TIT, is a horse of a small low size.

NARROW, a horse that narrows, is one that does not take ground enough; that is, does not bear far enough out to the one hand or to the other.

NAVEL GALL, is a bruise on the back of a horse, or pinch of a saddle behind, which if left alone long will be hard to cure.

The hurt obtains this name, because it is over-against the navel.

The cure: take oil of bay, oil of costus, fox-grease, oil of savin, of each an ounce, a handful of great garden-worms, scour them with salt and white wine, and put all the ingredients together into an earthen pipkin, stop or cover it very close, and boil them well; then add an ounce and a half of sallad oil; set it upon the fire again, and boil it till it becomes a perfect ointment, which strain into a gallipot: warm it when you use it, and so dress the sorrance with lints or hards dipt in it.

If the place be only swelled, and the skin not broken, then rub it with your hand, or a rag dipped in brandy, and it will take it down.

NECK OF A HORSE, should be lean, and but little flesh upon it; and to be well shaped, it should, at its go-

ing from the withers, rise with a slope upwards, diminishing by degrees toward the head.

In mares, it is a good quality to have their necks somewhat gross, and charged with flesh, because their necks are generally too fine and slender.

Deer necks, or cock-throppled, are those, in which the flesh that should be next the mane, is set quite below, and next the throat, which renders the neck ill-shaped and ugly.

A well-shaped neck contributes very much to the making him light or heavy of the hand, according as it is fine or coarse.

NECK, OR THROAT, swelling of the, in SWINE. When the swelling rises, which is often dangerous, bleed him under the tongue and tail, make a plaister of the yolks of eggs, bees-wax, wheat-flour, and Burgundy pitch; put coriander seeds and sliced horse radish, in the trough amongst his meat, which must be bran and wash very warm.

NEEZINGS; in order to purge a horse's head when it is stopped with phlegm, cold, and other gross humours, and to make him neeze; there is nothing better than to take a branch of pellitory of *Spain*, and tying the same to a stick, put it up his nostrils, and it will operate upon him without hurt or violence.

NEIGHING, is the cry of a horse. Such a horse neighs.

NET-MAKING; by nets here is meant, such as are useful to take fowl with; for the making of which, the instruments or tools required, are wooden needles, whereof you should have about half a dozen of divers sorts, some round, and others flat; also, a pair of flat, round-pointed scissars, and a wheel to wind off the thread; the packthread must be the best and eveneſt that can be got, greater or smaller, according to the fowl you design to take: the meshes must be about two inches from point to point, for the larger they are, it is the better to entanlge fowl.

But the nets must be neither too deep nor too long, or that will render them troublesome to manage, but let them be well verged on each side with a long twisted thread.

As for the colouring, the russet ones are made so by putting them into a tanner's pit, where they must lie till they are well coloured; and this tincture is also an excellent preserver of them.

To make them green, chop and boil some green wheat in water, and rub your nets therewith, letting them lie in it twenty-four hours.

The yellow colour is done by steeping the net in the juice of celandine, and then drying it in the shade, for it must not be over bright, but of the colour of stubble in harvest time, for which season it is proper.

For preserving them, care must be had to keep them dry, for which end hang them abroad in the sun, whenever you have used them in the dew or rain; and see the least rent or breach be mended upon the first discovery; hang them at a distance from the wall, lest they be injured by rats and mice.

The readiest way of taking great fowl with nets, is the making of the nets, which must be of the best packthread; with great and large meshes, at least two inches from point to point; for the larger the meshes are, (so that the fowl cannot creep through them) the better it will be, for they entangle them the more certainly.

Let not the nets be above two fathoms deep, and six in length, which is the greatest proportion that a common man is able to overthrow. Verge the nets on the outside with very strong cord, and extend it at each end upon long poles made for that purpose.

Being provided with nets, observe the haunts of fowls, or their morning and evening feeding-places, coming to them, at least two hours before those seasons, and spreading the net smooth and flat upon the ground, staking down the two lower ends firm; let the upper ends stand extended upon the long cord, the farther end thereof being staked fast down to the earth, two or three fathom from the net, and let the stake which staketh down the cord, stand in a direct and even line with the lower verge of the net, still observing the distance; then the other end of the cord, which must be at least ten or twelve fathom long, the fowler must hold in his hand, at the uttermost distance aforesaid, where he should make some artificial shelter either of grass, sods, earth, or some such like matter, where he may lie out of the sight of the fowl.

Take care that the net may lie so ready for the game, that upon the least pull, it may rise from the earth, and fly over.

Strew over all the net, as it lies upon the ground, some grass, that you may hide it from the fowl. It will also be convenient to stake down a live hern near your net, or some other fowl formerly taken, for a stale.

When you see a good number of fowls come within the verge of the net, draw the cord suddenly, and cast the net over them: continue your sport till the sun be near an hour high, and no longer, for then their feeding is over for that time; but you may go again in the evening, from about sun-set till twilight.

By this means you may take, not only great quantities of large wild fowl, but also plovers.

To take small water-fowl with nets, make your nets of the smallest and strongest packthread, but the meshes must not be near so big as those for larger fowl, about two feet and a half, or three feet deep.

Line these nets on both sides with small nets, every mesh being about an inch and a half square, each way, that as the fowl striketh either through them or against them, so the smaller net may pass through the greater meshes, and so straiten and entangle the fowl.

These nets are to be pitched for every evening flight of fowl, before sun-set, staking them down on each side of a river, about half a foot within the water, the lower side of the net being so plumbed, that it may sink so far and no farther: place the upper part of the net slant-wise, shoaling against the water, yet not touching the water by near two feet, and let the strings which support this upper side of the net, be fastened to small yielding sticks, pricked in the bank, which, as the fowl strikes, may give liberty to the net to run and entangle them.

Thus place several of these nets over different parts of the river, about twelve score fathom one from another, or as the river or brook will allow; and you may depend upon it, that if any fowl come on

on the river that night, you will have your ſhare of them.

And that you may attain your end the ſooner, take a gun, and go to all the fens and plaſhes that are at a diſtance from your nets, and fire three or four times, which will ſo affright the fowl, that they will fly to the rivers; then plant your nets upon theſe fens and plaſhes.

In the morning, go firſt to the river and ſee what fowls are caught there, and having taken them up with the nets, if you eſpy any fowl on the river, diſcharge your gun, which will make them fly to the fens and plaſhes; where go to ſee what are taken. By this means you will ſcarce fail of catching ſome, although there ſhould be but very few abroad.

NIGHT-ANGLING. *See* ANGLING.

NIGHTINGALE, a ſmall bird, in bigneſs much reſembling a lark; it has a brown back, and is aſh-coloured towards the belly.

The nightingale has the ſuperiority above all other birds, in reſpect to her ſinging with ſo much variety, the ſweeteſt and moſt melodiouſly of all others.

Nightingales appear in *England*, about the beginning of *April*, none as yet knowing where their habitations are during the winter ſeaſon; and they uſually make their neſts about a foot and a half, or two feet above ground, either in thick quick-ſet hedges, or in beds of nettles where old quick-ſet hedges have been thrown together, and nettles grown through; and make them of ſuch materials as the place affords; but ſome have found their neſt upon the ground, at the bottom of hedges, and amongſt waſte grounds: and ſome upon banks that have been raiſed, and then overgrown with thick graſs. As for the number of their eggs, it is uncertain, ſome having three or four, and ſome five, according to the ſtrength of their bodies; and thoſe that make their neſts in the ſummer, have ſometimes ſeven or eight; but they have young ones commonly in the beginning of *May*.

The nightingale that is beſt to be kept, ſhould be of the earlieſt birds in the ſpring, they become more perfect in their ſongs, and alſo hardier, for the old one has more time to ſing over, or continue longer in ſinging than thoſe that are later bred, and you may have better hopes of their living. The young ones muſt not be taken out of their neſts till they are indifferently well feathered, not too little nor too much, for if the laſt, they will be ſullen, and in the other caſe they are apt to die, and at the beſt they are as much longer in bringing up.

Their meat may be made of lean beef, ſheep's heart, or bullock's heart, the fat ſkin whereof that covers it, muſt firſt be pulled off, and the ſinews taken out as clean as poſſible; then ſoak a quantity of white bread in water, and chop it ſmall, as it were for minced meat, then with a ſtick take up the quantity of a grey pea, and give every one three or four ſuch gobbles in an hour's time, as long as they ſhall endure to abide in their neſts.

When they begin to grow ſtrong, and ready to fly out, put them into the cage with ſeveral perches for them to ſit upon, lined with ſome green baize, for they are at firſt ſubject to the cramp; and put ſome fine moſs or hay at the bottom of the cage, for them to ſit on when they pleaſe, always obſerving to keep them as clean as may be, for if they are brought up naſtily, they, as well as all other birds, will always be ſo; ſome ſuffer no day light to come to them only on one ſide; others, more curious, line their cages on three ſides with green baize.

For the diſeaſes incident to this delightful bird; as nightingales grow extraordinary fat, both abroad in fields, as well as in houſes where they are caged up, you are to obſerve, it is very dangerous when it begins to abate, if they do not ſing, therefore they muſt be kept very warm upon the falling of their fat, and muſt have ſome ſaffron given them in their meat and water: but when they are perceived to grow fat, they muſt be purged two or three times a week, with ſome worms that are taken out of pigeon-houſes, for four or five weeks together; and give them two or three ſpeckled ſpiders a day, as long as they laſt, which ſpiders are found in *Auguſt*. If they grow melancholy, put into their water or drinking-pot, ſome white ſugar-candy, with a ſlice or two of liquorice; and if they ſtill complain, put into their pot ſix or eight chives of ſaffron, continuing to give them ſheep's hearts and paſte, alſo three or four meal worms a day, and a few ants, and their eggs: farther, boil a new-laid egg very hard, mince it ſmall, and ſtrew it amongſt the ants and their eggs.

Nightingales that have been kept two or three years in a cage, are very ſubject to the gout, in that caſe you muſt take them out, and anoint their feet with freſh butter or capon's greaſe three or four days together, which is a certain cure.

The chief thing that cauſes moſt of the diſeaſes, is for want of keeping them clean and neat, whereby their feet become clogged, and their claws rot off, which brings the gout and cramp upon them; be ſure twice a week to let them have gravel about the bottom of the cage, which muſt be very dry when it is put in, as it will not then be ſubject to clog.

Theſe birds are alſo ſubject to apoſthumes and breakings out above their eyes and nebs, for which you are alſo to uſe butter and capon's greaſe. To raiſe nightingales when they are very bare, give them new eggs chopt very ſmall, amongſt their ſheep's heart and paſte, or hard eggs, and when they are recovered, bring them to ordinary diet again, that you may continue to maintain them in their former plight; but as ſoon as you perceive them growing fat, give them no more eggs.

There is another diſeaſe incident to thoſe birds, called the ſtraitneſs, or ſtrangling in the breaſt; which proceeds very often from want of care in preparing their food, by mixing fat meat therewith; and may be perceived by the beating pain they were not accuſtomed to, which abides in this part, and by his often gaping and opening his bill; it may alſo be occaſioned by ſome ſinew or thread of the ſheep's heart, (for want of ſhredding with a ſharp knife) that hangs in his throat, or that many times cling about his tongue, which makes him forſake his meat, and grow poor in a very ſhort time, eſpecially in the ſpring, and when he is in the ſong note; as ſoon as you perceive the ſymptoms, take him gently out of his cage, open his bill with a quill or pin,

pin, and unloose any string or piece of flesh that may hang about his tongue or throat, and when you have taken it away, give him some white sugar-candy in his water, or else dissolve it and moisten his meat with it, which will prove a present remedy.

All that is to be said more concerning this melodious bird, is touching the length of his life; some live but one, some three, some five, and others unto eight and twelve years; and they sing rather better and better for the first eight years, but then they decline it by degrees; but if they have good keepers, it will prolong their lives three or four years; and where there is one kept in a cage until that age, an hundred die, yet the care of some have been such, that it has been known nightingales have lived to be fifteen years old, and to continue singing, more or less, for the most part of the time. *See* PASTE FOR BIRDS.

NIGHT-HOOKS should be thus laid: procure a small cord sixteen yards long, and at equal distances tie to it five or six hempen lines, of the thickness of the trouling-line, about eighteen inches long apiece, fastening them in such a manner as you may easily remove or put them to again. To each of these whip a hook, and bait it with a minnow, loach, or bull-head, his gill fins cut off; or, for want of them, with a small gudgeon, a small roach, a piece of seven eyes of about an inch, and the brightest coloured you can get, which is much the most preferable baits for eels, or one of the small brood of eels, or with beef, or the pith and marrow in an ox or cow's back bone. If you bait with any fish, put the point of the hook in at the tail and out at the mouth, the head of the fish resting on the hook's bent; and cover the point of the hook with a small worm: then at one end of the cord fasten a stone or a lead weight of about two pounds, and throw it cross the river in some still deep, or at the tail or side of a deep stream. Fasten the other end to some bough or stick, on the water-bank you stand on; and in the morning you will seldom fail to find fish ensnared. Use a great fish needle to draw the line through the bait, and out at its tail, and then let it slip down to the hook's bent, the head being downwards, tying the tail to the line with thread, and the top of the hemp line to the cord.

Eels, chub, large trouts, and pike, are taken this way; but if you lay for pike, keep the bait with a float about a foot from the bottom. For other fish let it touch the bottom.

NIGHT-MARE. A malady incident to horses as well as human bodies, proceeding from the melancholy blood oppressing the heart; it will cause the horse to sweat more in the night than in the day, and thereby deprive him of his rest.

You may discover it by observing him in the morning, whether he sweats on the flanks, neck, and short ribs, which are sure indications of it.

For the cure. Take a pint of sallad oil, a quarter of a pound of sugar-candy, put into them a handful of salt, mix them well together, warm them blood-warm, and give it the horse two mornings.

NIPPERS are four teeth in the fore-part of a horse's mouth, two in the upper and two in the lower jaw: a horse puts them forth between the second and third years. *See* TEETH.

NIPPERS. Smiths or farriers nippers, are the pincers with which they cut the nails they have drove in, before they rivet them, and which they use in taking off a shoe.

NOSE-BAND, OR MUSROLL, is that part of a head-stall of a bridle that comes over a horse's nose.

NOSTRILS OF A HORSE, should be large and extended, so that the red within them may be perceived, especially when he sneezes: the wideness of the nostrils does not a little contribute to the easiness of breathing.

OATS, sown in *February* or *March*, are of an opening nature and sweet; they are the best grain for horses, others being apt to stop, which must be injurious; yet oats given in too great a quantity over-heat a horse.

Oats newly housed and threshed, before they have sweat in the mow, or have been otherwise thoroughly dried, are too laxative.

OBEY. A horse is said to obey the hands and the heels, to obey the aids or helps. Thus:

A horse is said to obey the spurs, that is, to fly from them.

OPENING OF A HORSE'S HEEL, is when the smith, in paring the foot, cuts the heel low, and takes it down within a finger's breadth of the coronet, so that he separates the corners of the heel, and by that means impairs the substance of the foot, causing it to close, and and become narrow at the heels: this practice therefore ought always to be avoided, since if there be any weakness in the foot, it will of necessity make it shrink and straiten in the quarters, so as absolutely to spoil the foot.

ORTOLAN. A bird somewhat smaller than a lark, having a red bill, legs, and feet, the wings intermixt with black and yellow, the neck, head, and belly of an orange colour, the breast yellow, with orange-coloured spots.

It feeds upon millet, it is delicious food, and casts much fat; they come to us in *April*, and go away in *September*; the time to take them is in *July* and *August*. They are taken in bow-nets: the places they most delight in, are vineyards, and oat fields near them.

OSSELETS, *i. e.* LITTLE BONES, are hard excrescences in the knees of some horses, so called in *French*.

There are also three kinds of osselets, which are of the same nature as splents, and some persons take them for the same thing; but there is this difference however between them, that splents come near the knees, and osselets near the fetlocks. Their seat is indifferently within or without the leg.

The first is the simple osselet, which does not grow near the joint of the fetlock or the nerve.

This need not hinder any man from buying a horse, because it puts him to no inconvenience, and very often goes away of itself without a remedy. The second is, that which descends into the fetlock, and hinders the motion of that joint: this occasions a horse to stumble and

and fall, and with a very little work to become lame. The third has its ſeat between the bone and the nerve, and ſometimes upon the nerve; it ſo much incommodes a horſe that he cannot ſtand firm, but limps on every little occaſion.

OTTER. Some are of opinion, that the otter is of the beaver kind, being an amphibious creature, living both in the water and on the land; beſides, the outward form of the parts bears a likeneſs of the beaver; ſome ſay, were his tail off, he were in parts like the beaver, differing in nothing but habitation, for the beaver frequents the ſalt water as well as the freſh, but the otter never goes to the ſalt.

Though the otter lives in the water, yet he does not, like fiſhes, breathe through the benefit of the water, he taketh breath like other four-footed beaſts, yet will remain a long time underneath the water without reſpiration.

If he wants prey in the waters, then he will quit them for the land; and if by painful hunting on ſhore he cannot fill his belly, he will feed on herbs, ſnails, or frogs; neither will he take leſs pains in the water to ſatisfy his hunger, for he will ſwim two miles together againſt the ſtream, that ſo, when he has filled his belly, the current may carry him down again to his deſigned lodging, which is always near the water, very artificially built with boughs, ſprigs, and ſticks, couched together in excellent order, wherein he ſits to keep him from the wet.

In the hunting of fiſh, he often puts his noſe above water to take breath: he is a creature of wonderful ſwiftneſs and nimbleneſs in taking his prey, and for greedineſs, takes more than he knows what to do with.

He is a very crafty and ſubtle beaſt, and endowed with a wonderful ſagacity and ſenſe of ſmelling.

The fleſh of this beaſt is both cold and filthy, becauſe it feedeth on ſtinking fiſh, and therefore not fit to be eaten, yet it is eaten in *Germany;* and the *Carthuſian* friars, who are forbidden the eating of all manner of fleſh of other four-footed beaſts, yet are not prohibited the eating of otters.

OTTER-HUNTING. This is performed by dogs called otter-hounds, and with inſtruments, called otter-ſpears, with which when they find themſelves wounded, they make to land and fight with the dogs furiouſly, as if they were ſenſible that the cold water would annoy their green wounds.

There is indeed craft to be uſed in the hunting them; but they may be catched in ſnares under water, and by river-ſides; but great care muſt be taken, for they bite much and venomouſly, and if they remain long in the ſnare, they will not fail to get themſelves free by their teeth.

In hunting them, one man muſt be on one ſide of the river, and another on the other, both beating the banks with dogs, and the beaſt not being able to endure the water long, you will ſoon diſcover if there be an otter or not in that quarter, for he muſt come out to make his ſpraints, and in the night ſometimes to feed on graſs and herbs.

If any of the hounds find out an otter, then view the ſoft grounds and moiſt places, to find out which way he bent his head; if you cannot diſcover this by the marks, you may partly perceive it by the ſpraints; and then follow the hounds, and lodge him as a hart or deer.

But if you do not find him quickly, you may imagine he is gone to crouch ſomewhere farther off from the river; for ſometimes they will go to feed a conſiderable way from the place of their reſt, chuſing rather to go up the river than down it.

Perſons that hunt otters muſt carry their ſpears to watch his vents, that being the chief advantage; and if they perceive him ſwimming under water, they muſt endeavour to ſtrike him with their ſpears, and if they miſs, muſt purſue him with the hounds; which (if they be good and perfectly entered) will go chanting and trailing along by the river-ſide, and will beat every root of a tree, and oſier-bed, or tuft of bull-ruſhes; nay, they will ſometimes take water, and bait the beaſt like a ſpaniel, by which means he will hardly eſcape.

OVER-DONE, OVER-RID, OR OVER-WORKED; a horſe is ſo called, when his wind and ſtrength are broke and exhauſted with fatigue.

OVER-REACH. A horſe is ſaid to over-reach when he brings his feet too far forwards, and ſtrikes his hinder toes againſt the ſpunges of his fore-ſhoe.

A horſe over-reaches through a weakneſs in the back, or by being ſuffered to bear too much upon the ſhoulders.

OWL, HORN-OWL, HORN-COOT. A large bird that keeps always in woods and great foreſts, being often bigger than a middle ſized gooſe; with hairy eyes, and rough-footed, great tufts of feathers on either ſide of his head, bearing out like horns, his face broad and large, his eyes great and ſparkling. and his voice terrible; but being a bird that uſually ſleeps by day, when other fowls eſpy him, they gather about him both great and ſmall, and attempt to kill him.

When a fowler has got ſuch a one as this, he need not want recreation, after having made him fit for his purpoſe: to which end, let him firſt teach him to come and feed on his fiſt, and then put him into ſome room or cock-loft, where there are placed two pieces of timber, one at each end of the room, which ſhould be two feet high, and the upper ſide cut like the ridge of a houſe, declining on both ſides, that the horn-coot may perch thereon; then tie a cord from one end of the ſaid perches to the other, having firſt drawn it through an iron ring, or ſome ſtrong leather ſtrap, to which fix a ſtrap about three feet long, and at the other end your horn-coot is to be faſtened by the legs, like a hawk, but the ring or ſtrap muſt be looſe, ſo as to play forwards and backwards from one billet to another, that the bird may divert himſelf when he is minded to change places.

At firſt, ſet not your two perches or billets above ſix or ſeven feet aſunder, but afterwards you may lengthen by little and little, as you perceive he comes on. Let him not reſt at time upon the ground; and let the ſtrap by which he is tied be proportioned to the height of the perches.

You muſt alſo teach him to fly from one ſtand to another, but never feed him on that perch where you find him, but only ſhew him his food, to draw and entice him to the other perch.

When

When he has had a reward of two or three bits, remove yourself to the other end, calling him, and unless he comes to the other perch give him no more; and hereby in a short time you will find he will be too quick for you, and in two months he will be perfected therein.

OX-FEET IN A HORSE, is when the horn of the hind foot cleaves just in the very middle of the forepart of the hoof, from the coronet to the shoe: they are not common, but very troublesome, and often make a horse halt.

OX-LEGS. An imperfection in some horses, which, though they have the back sinew of their fore-legs somewhat separate from the bone, yet their sinews are so small and so little set off, that their legs will become round after small labour.

OXEN FOR DRAUGHT. On this subject Mr. LAWRENCE has paid great attention, and with great judgment says, among various other observations, that the use of oxen in draught would be a national benefit.

Mr. CULLEY, and his partner, employ one hundred and fifty draught-oxen in their husbandry, after thirty years experience of their utility; they use them in carts single, and two in a plough, with reins, and no driver. Mr. CULLEY's advice is, not to mix oxen with horses, on account of the inequality of the step.

Thus, it is not a matter of speculation, but of experience and proof, that all the labour of husbandry may be well performed by oxen; and surely, if the only objection, that of their being somewhat slower than horses, can never be surmounted, there are other considerations of weight sufficient to overbalance it. A greater number of them may be kept to forward labour, and that, instead of being an extra charge (as would be the case with an extra number of horses) to both individual and public emolument. The balance in favour of individuals must be indeed great, if we reflect that three oxen may be purchased for less money than one good cart-horse; that the latter is liable to be worn out, and to become of little or no worth, whereas the former never wear out, but the last stage of their useful lives is as profitable as the first.

The method proposed by most people, desirous of effecting this advantageous change in our agricultural œconomy, is by the interference of government, either by the way of restrictive taxation, or absolute prohibition; means which, ought never to be resorted to, in any similar case. There is, however, a species of coercion perfectly legitimate, that of the lord of the land over his tenant; and it is submitted to public-spirited landlords, whether, in granting leases, it would not be an act of patriotic duty, to stipulate for the employment of draught oxen upon the farm to a certain extent. Such a clause would be an advantageous change for the impolitic one of compelling the tenant to make summer fallows.

But it behoves those, who are so sanguine in recommending the use of bullocks for labour, to point out where such may be had, and that with little trouble too; for it is well known to those most conversant with his character, that honest John Trot would not be induced to step a single inch out of his accustomed track, by a prospect of the greatest advantage; nay, would even detest the man with a kind of religious hatred, who should presume to point it out to him. The oxen broke for draught are few; and in numberless situations, particularly out of breeding counties, a man must send five or six score miles to obtain them. This inconvenience must be obviated by the body of landlords, and by our great experimental stock-breeders; on whom it depends to raise an improved species, in sufficient numbers for general use, and to promulge the best methods of breaking and training them to labour. The old fashioned wooden yoke has been long laid aside, and experience shews that oxen draw best in breast collars; indeed their harness differs very little from that of the horse, and any collar-maker can very easily furnish them.

The improvement having obtained thus far in the field of husbandry, and having surmounted its greatest difficulty, it is scarce possible, but it must even, by contagion, reach the other departments of public service. Stage waggons are not required to move quick, and if we must give up a few hours in a journey, surely both the proprietors and the public would be amply recompensed for a little lost time, by the exchange of wholesome beef, for unprofitable carrion. Teams of oxen were set up years ago, in this service, which did not succeed, but were again exchanged for horses; but little stress will be laid upon this by persons versed in the uncertain nature of experiments. The species of cattle might be improper, and we have reason to suspect they were not kept in sufficient good condition. The expected improvement in carriages, from the multiplication of wheels, may possibly have the additional good effect of promoting the use of oxen. All persons concerned in carriages, will do well to attend to what Mr. JAMES has said upon the subject.

With respect to the brewery, upon a small scale, or in the country; all the business of draught required in such a situation, may be equally well performed by oxen, as by horses: a considerable improvement of that concern, since their bullocks, after having worked a sufficient time might be fatted with their own grains.

How far oxen might be useful in the hurry and bustle of a *London* porter brewery, the concerned must be the most proper judges; and there can be no doubt that those gentlemen would be ready enough to catch at any considerable alleviation of the immense expence of horse-keeping, the annual amount of which, in a great house, is a noble revenue.

Often has it been wished it were possible to extirpate the whole race of those Belgic-locusts, the heavy cart-horses, and to divide the duties of slow-draft between polled oxen and cast-off machiners. It would be an act of mercy, and securing a kind of retreat for these last, particularly when employed upon a farm; for which reason, we should wish to see them a somewhat wider and squarer race. After all these fine speculations, we fear we must have a few *Suffolk* punches, to draw us through, when deeply set.

Mr. LAWRENCE also says, an ox-team ploughs an acre in eight hours, performing the day's work with full as much

much eafe and difpatch as a team of horfes. The oxen are exceedingly handy, and may be driven with a heavy load to a hair's breadth. My informant is in the habit of carting lime from the diftance of feventeen miles, both with ox and horfe teams, and the former ufually beat the horfes by about an hour in the journey, taking the carts faster up the hills. Oxen, by trial, have walked more miles in a given time than cart-horfes. They are fed (the oxen) with hay and chaff, and but little corn.

The neat cattle both of *Herefordfhire* and *Shropfhire*, are a fuperior fpecies in refpect to form as well as fize; the latter have the preference for the dairy; the former are reared to great fize and beauty, by the judicious and fpirited breeders of that county, and annually command extraordinary prices, as grazing ftock, in *Buckingham* and *Oxfordfhire*. In *Herefordfhire* they put their bullocks to work at two years old, continuing them until five or fix; but as during the late exceffive prices of ftock, every refource has been anticipated, working oxen have been commonly fold to go to keep, at three and four years old. The price of a young bullock, fit to break for harnefs before the war, was from ten to feventeen pounds, fince which it has been more than doubled. Indeed the price of live ftock of all kinds, has been of late, and was on the commencement of the year 1797 fo exorbitant, as fcarce to feem deferving of credit; now the excefs is in fome degree moderated.

The ox being an animal of a meek and gentle fpirit, and eafily intimidated, it is highly neceffary to ufe the utmoft mildnefs and forbearance in breaking him to labour, and, indeed in driving him ever afterwards; a rafh and mad-headed fellow will foon fpoil the tempers, and lower the worth of the beft team of bullocks. They are apt to conceive attachments and antipathies, and to take alarm at perfons who have treated them ill. On firft beginning to plough with oxen, it is advifable to engage a driver who is their countryman, and has been accuftomed to attend the fpecies.

In *Suffex*, the ufe of oxen for the plough is general, and they perform well upon the ftiffeft clays of that county; it has even been afferted, that they hang better to the collar, in a long day, than horfes. The *Suffex* beafts are flower than the *Hereford*. Some farmers have put their bulls to work with good fuccefs.

Now if accounts are to be relied on, there are oxen to be found, nearly, if not altogether upon a par with horfes, both at plough and on the hard road, notwithftanding no improvement in the breed, for that exprefs purpofe, has ever been attempted; and it has never yet been the cuftom to feed them well, or to aim at getting them in high condition, as we do horfes. On that account it probably is, that bullocks are fometimes fo dull and faint, and liable to fuch dangerous accidents, from being over fatigued at work.

In *Holland* they keep their cows curried as fine as racers, and I have even been told they clothe them upon turning them out; and I think our labouring beafts ought to be kept within doors in winter, fed with corn, and drefled in as careful a manner as our horfes.

The fair queftion is, does an additional annual product of corn throughout the ifland refult from the labour of horfes, fufficient to reimburfe their fuperior expence, and to counterbalance the profit of flaughtering the oxen, after their period of labour fhall have expired? I fhould fuppofe the negative of the propofition moft probable, and that we are merely facrificing to our prejudices, and to the venerable idol cuftom, in ufing fuch multitudes of draught horfes. Of the farther poffible improvement of the breed of oxen, in point of activity, we fhall not hefitate to fpeak with confidence; nor to aver, there are many farms (it is true they are not in *Norfolk* or *Suffolk*) the whole ploughing and carting bufinefs of which might be to the full as well performed, in all refpects, by oxen, as it now is with horfes.

One of the reviews (the Britifh Critic) in the article of a pamphlet of the intelligence from feveral different quarters in the weft, goes to the length of a decided preference of oxen, both at plough and cart, refulting from long experience and fair trial; but at the fame time I ought in juftice to acknowledge, that my countrymen, the farmers of *Effex*, pofitively affert the fuperiority of horfes, and even the almoft impoffibility of making any tolerable fhift with oxen; at the fame time, none of thefe gentlemen have ever made the experiment; but fuch is their opinion *a priori*. To recapitulate, beginning with the following obfervations upon this fubject.

In *Hampfhire*, a confiderable farmer, keeping an equal number of horfes and of oxen, for the plough, found little or no difference in their fervices.

In *Northumberland*, Mr. CULLEY, after thirty years experience, keeps one hundred and fifty draught oxen, ufing them two in a plough, with reins and no driver, and in carts, fingle.

In *Middlefex*, an ox-team of the floweft kind, having little, or perhaps no corn, ploughed three quarters of an acre per day, where the horfe-team did an acre. Thefe bullocks alfo carted hay to *London*, returning as ufual with dung.

In *Herefordfhire*, the oxen with very little corn, beat the horfes both at plough and upon the roads, which are very hilly and ftoney.

In *Suffex*, oxen are ufed at plough with the greateft fuccefs.

In many parts of the Weft of *England*, oxen are preferred to horfes, for both kinds of labour.

From thefe data, every one is at liberty to draw fuch inferences as to him may feem rational. Let it be confidered, that the number of horfes employed in agriculture, and for the different purpofes of flow draught, in *Britain*, probably exceeds one million five hundred thoufand, and that if only one half of thofe could with propriety be changed into good wholefome beef, how immenfe muft be the faving; it being taken into the account, that the time approaches, with fearful ftrides, when national economy alone can fave us from impending deftruction. In two refpects, we may perhaps pretend to fome little originality of thinking on this fubject; to wit, on the more liberal feeding, and the breeding the ox to greater fpeed. Every one who has entered into the philofophy of laborious exertion, and attended

tended the practice, whether in men or animals, must be convinced how much it depends upon ample and solid nutriment. Every adept in the mysteries of the stable, well knows how contributory are cleanliness, and keeping the perspiration open and free, by regular diurnal frictions, to the nimbleness and hilarity of the animal. In regard to raising a variety of the ox, with the qualification of more than the usual activity, where should be the difficulty, since we have been long accustomed to vary and mould him at pleasure into such differing shapes and forms, as caprice or interest has prompted? Perhaps those gentlemen who have been in the habits of breeding horses for the turf, would succeed best in this pursuit: it is of great national importance, and not unworthy attention.

The *Annals of Agriculture*, after stating, that the labouring ox, with proper management, gains two or three pounds per year, whilst the horse grows annually worse, observes, "that the ox requires no oats, and instead of hay, is generally contented with straw." We must beg leave to hint to that respectable writer and agriculturist, our apprehension, that such observations may have a tendency rather to retard, than forward, the public cause of employing oxen. The grand objection to bullocks for labour, is want of expedition, which can never be obtained from any animals, without solid and generous keep. It neither consists with humanity, public or private interest, to labour the ox in low condition.

Leonard Mascal, farrier to James I. says, "that oxen were generally used and esteemed superior to horses, for the plough, in his days; he mentions disorders brought upon working oxen by poor keep, and their being subject in consequence to lie down in the furrow, when they were with difficulty got up again; he recommends for them, barley in the straw, which will, he says, keep them lusty and strong; also to curry them like horses, and constantly wash their feet and claws. It was their custom in those days to work barreners. The ancients occasionally purged their labouring oxen.

Mr. Young, in the number of the annals above quoted, speaks of a hornless breed of Devons, of a red colour, near *Bridport*; recourse may be easily had thither, by a curious breeder. In breeding the ox for labour, the required points, in my opinion, are, clean and fine head and neck, deep shoulder, wide quarters, thin skin, silk coat; and those qualities must be sought among the *Herefords*, *Yorkshire* short-horns, *North Devons*, and those of *Sussex*. There are exceeding fast walkers amongst the *Yorkshire* cows; and some well formed for labour, which appeared to be bred between *Norman* or *Alderney* stock, and *Yorkshire*. Equal activity of exertion at dead pulls, or ability to lift great weights, with our best cart-horses, must never be expected in the most improved breed of oxen; at the same time it must be conceded, those qualities are not our material objects of pursuit.

Pace of Asses. A herd or company of those beasts.

Paces of a Horse. The natural paces of a horse's legs are three, viz. a walk, a trot, and a gallop; to which may be added, an amble, because some horses have it naturally; and such horses are generally the swiftest amblers of any.

Horses which go shuffling or mixt paces, between the walk and amble, are for the most part of no value; and this oftentimes proceeds from their fretful fiery temper, and sometimes from a weakness either in their reins or legs.

Paddock-course. } A piece of ground en-
Paddock. } compassed with pales or a wall, and conveniently taken out of a park, it must be a mile long, and a quarter of a mile broad, but the farther end should be somewhat broader than the nearer, because that most people desire to see the end of a course, and who wins the wager.

At the hither end is to be the dog-house, where the hounds are to be kept that are to run the course, which must be attended by two men, one of them to stand at the door, to slip the dogs, but the other must be a little without the door to slip the teazer, to drive away the deer.

On the other side are to be made three pens for as many deer as are designed for the course; and there must be also a keeper or two, to turn the deer out from the course, which the deer are to run all along by the pale; and on the other side, at the same distance, stand the spectators; besides all which, these posts must also be placed along the course.

1. The law-post, which is next the dog-house and pens, and distant from them about an hundred and sixty yards.
2. The quarter of a mile post.
3. The half mile post.
4. The pinching post.
5. The ditch: which is in lieu of a post, being a place so made to relieve the deer, and to keep them from being farther pursued by the dogs; and near this place are made seats for the judges to sit, who are chosen to decide the wager.

As soon as the greyhounds that are to run for the plate or money, are led in the dog-house, they are delivered to the keepers, who by the articles of all courses, are to see them fairly slipt; for which end there is put about each dog a falling collar, which is slipt through the rings, after the owners of the dogs have drawn cuts which shall have the wall, by reason that there shall be no more advantage to the one than the other; then the dog-house doors are shut, and the keeper ordered to turn the breathed deer out of the pens, which is no sooner done, and the deer gone twenty yards, but he that holds the teazer, slips him, to force the deer forward; but when he comes to the law post, the dog-house door is opened, and the dogs let out and slipt. If the deer swerve before he comes to the pinching-post, so much that his head is judged to be nearer the dog-house than the ditch, then it is judged no match, and in such a case it must be run again three days after: but if there be no such swerve, but that the deer runs straight, beyond the pinching-post, then that dog that is nearest the deer, when he swerves, or is blanched by any accident, wins the match; but if no such swerve

happen, then that dog that leaps the ditch first, wins the match.

PAINS IN HORSES is a distemper, a kind of ulcerous scab, full of a fretting mattery water, breeding in the pasterns, between the fetlock and the heel; which comes for want of clean keeping and good rubbing, after the horses are come off a journey, by means of which, sand and dirt remaining in the hair, frets the skin and flesh, which turns to a scab; and therefore those horses that have long hair, and are rough about the feet, are more subject to this disease, if they be not kept clean.

The signs are these, his legs swell with the vehement heat that is caused from the venom and filthy water which issues from the scabs, for it is so sharp and scalding that it will scald off the hair, and breed scabs as far as it goes. That which cures the scratches will serve to heal these.

PALATE. The upper part or roof of the mouth.

In a horse, the palate should be lean, for if it be fat, *i. e.* full and high, so as to be almost equal with the extremities of his upper teeth, the least height in the liberty of a bitt will be troublesome, and make him either chack in the bridle and be always throwing up his head, or otherwise carry it too low, which, besides the unsightliness, will much annoy the rider's hand.

Horses are commonly bled in the palate with a sharp-pointed horn, to refresh and give them an appetite.

PALSY IN HORSES, a disease that sometimes deprives the whole body of sense, and then it is called the general palsy, is incurable; but when the use of some part only is taken away (which most commonly happens in the neck) it is then called a particular palsy.

The signs by which this distemper is known, are, that the horse will go grovelling and side-ways like a crab, carrying his neck as if it were broke, and will set forward crookedly, with his legs, and beat his head against the wall.

The disease proceeds from foul feeding in fenny grounds, which breed gross and tough humours, and being joined by crudities and ill digestion, affects the brain; or it may have been caused by some wound or blow upon the temples.

In order to a cure, bleed him in the neck-vein and temple-vein, on the contrary side to the way he turns his neck; then anoint his back all over with petroleum, or oil of petre, and swathe his neck with a wet hay-rope, even from his breast to his ears.

Then give him for three mornings together a pint of old muscadine, with a spoonful of the powder of opopanax, staran, gentian, manna, succory, myrrh, and long pepper; but put not so much of the last ingredients as of the rest.

This disease may be relieved by bleeding, rowels, infusions of the herbs, with mustard, horse radish, and parsley, acidulated with cremor tartar, and sweetened with honey. Brisk purge of aloes and jalap, or a mercurial purge of cinnabar balls. It should be remembered always to acidulate the cooling herb drinks with cremor tartar or lemon juice, as otherwise they pall and disgust the stomachs of horses; and that generally infusions in boiling water, are to be preferred to decoctions.

PANNAGE, } the mast of the woods, as of beech,
PAWNAGE, } acorns, &c. which swine or other cattle feed on; or the money taken for feeding hogs with the mast of the king's forest.

PANTAS IN CATTLE; this disease proceeds from eating foul grass, or dry harsh grass in summer, which does not go forth of their maw, but maketh them go with a short grunt, and go but a little way, and stand as if they were not able to go half a mile. To cure it,

Take a quart of half churned milk with the butter in it, and take a good garlic head, or two little ones, and peel them as if they were to eat, so bruise them; then take a pennyworth of the finest tar that you can get, and a good handful of the finest feathers that can be got without stumps, for fear of sticking in the beast's throat; beat all these together, and, if they chance to go in lumps, put them together and beat in a little soot; and so give it to the beasts, and they will be well in twenty-four hours.

PANTONS, OR PANTABEL-SHOES, are a sort of horse-shoes that serve for narrow and low heels, and to hinder the sole from growing too much downwards, so that the foot may take a better shape; they also help hoof-binding, and are good for *Flanders* mares before their feet grow bad.

When a horse is shod with a panton, it must follow the compass of the foot, and the branches must not be straight: care must also be taken to keep the sole strong, without taking any thing almost from it, otherwise the horse will halt.

PARE, to pare a horse's foot, is to cut the horn and the sole of the foot, with a buttrice, in order to shoe him.

PARKS AND WARRENS, are places where deers, hares, conies, &c. are enclosed with pales, or a wall, so as it were a store-house, to be always ready to furnish you with those animals either for use or pleasure.

The first *Roman* that inclosed wild beasts was FULVIUS HARPINUS. VARRO, who lived 28 years before Christ, had the first hare warren. The first park in *England* was at *Woodstock* in *Oxfordshire*, and was made about the year 1124.

A park should have three sorts of land in it, viz. mountainous and barren, hilly and yet fertile, plain and fruitful; the mountainous part should be well covered with high woods, at least a third part thereof; the downs and hills, should have one-third part coppices and low woods; and the plains at least one-third part meadows with some arable for corn.

A park should not want a river to run through some part of it; also it ought to have a small brook or spring, but if nature denies these conveniencies, art must supply it by ponds, made to receive and preserve rain that falls; and such ponds will be very profitable for fish and fowl, in some of which may be made a decoy.

You ſhould have your park well ſtored with many trees, as oak, beech, and cheſnut, which are not difficult to be had, and are quick of growth, eſpecially the two laſt, and they exceed the former alſo in ſweetneſs and goodneſs; neither ſhould apple, pear, and plum trees, be wanting, all affording good food for them.

You ſhould alſo have your park well incloſed, if poſſible, with a brick or ſtone wall; or, for want of that, with a pale of ſound oak, ſo high and cloſe joined, that neither badger nor cat can creep through, nor wolf nor fox can leap over; and for a further defence, it is not amiſs to have a good quick-ſet hedge, which ſhould be always kept in good order.

Some part of the mountain and high-wood may afford a hernery, and ſome part of the middle may be for a coney or hare warren.

In the whole, you may breed young cows and horſes, nor is it amiſs that in ſome part of the low ground, you have a cow walk during the ſummer ſeaſon.

There ſhould be at leaſt five or ſix incloſures in your park, that you may ſhut out, and let in, your deer, as you ſee occaſion; ſometimes all together in your high woods, where in cold froſts and ſnow they may be ſheltered, and fed by the keepers with hay and provender.

You may alſo in ſummer let ſuch a proportion as you intend to uſe, be fed in better ground than the others which are for ſtore.

You ſhould make artificial holes and caverns for the deer to retire into, as well in the hot as cold ſeaſons.

It will be proper to ſow therein gourds, meceline-corn, barley-peas, and the like, in which hares generally delight, and will thereby quickly grow fat.

And as for conies, if you ſound a trumpet in ſome of the burrows, there will be ſcarce one in the whole warren but will ſtart out.

PART, OR DEPART, a word uſed in the academies to ſignify the motion or action of a horſe when put on at ſpeed.

Part of a Horſe's Body.

1. As to the hair. The hair and hide, are in general all the hair and ſkin of the body of the horſe.
2. The mane; the long hair on the horſe's neck.
3. The topping; or foretop.
4. The fetter-lock, or fetlock; the hair that grows behind the feet.
5. The coronet, or cronet; the hair that grows over the top of the hoofs.
6. The brills; the hair on the eye-lids.

As to the Head, Neck, and Breaſt.

1. The creſt, or criſt; the ridge on the upper part of the neck, where the mane grows.
2. The neck; is accounted all from the head to the breaſt and ſhoulders.
3. The breaſt, briſket, or cheſt; is the fore-part of the neck at the ſhoulder down the fore-legs.
4. The ſtar is in the forehead.
5. The rache down to the face; when the hair is of another colour, different from the reſt of the head.

As to the Body.

1. The withers; are the top of the ſhoulder-blades, at the ſetting on of the neck.
2. The dock; is the place where the ſaddle is ſet.
3. The navel-gall; on the back oppoſite the navel.
4. The reins; is all the middle of the back from the mane to the tail; the ridge of the back.
5. The dock or ſtrunt; is the tail of the horſe.
6. The fundament, or tuel; the aſe.
7. The ſway, or ſwayed back; is the hollow, or ſinking down of the back-bone.
8. The throppple; the wind-pipe.
9. The girth-place; is the fore-part of the belly.
10. The belly; the middle of the belly where the navel is; the navel-place.
11. The flank; is the hinder part of the belly, next the ſheath.
12. The groins; are the hinder parts near the thighs, on each ſide the ſheath.
13. The ſheath; is the looſe ſkin within which the yard is.
14. The yard; is his byentall.
15. The nut; is the bob at the end of his yard.
16. The cods; is the ſkin in which the ſtones are.
17. The fillets; are the fore parts of the ſhoulders next the breaſts.
18. The ſides; the nearer-ſide, farther-ſide, riſing-ſide.
19. The buttocks; are the hinder parts of a horſe's body.
20. The top of the buttock; is that part next the ridge of the back and tail.

As to the Thighs and Legs.

1. The ſtiffle, or ſtiffle-joint; is the firſt joint and bending next the buttock, and above the thigh, which bends forwards
2. The thigh; is that part between the chambrel and ſtiffle joint.
3. The chambrel, or elbow; is the joint, or the bending of the upper part of the hinder-leg, that bends backwards from the body.
4. The ham and bight, or bought; is the inward bending of the chambrel; it is alſo uſed for the bending of the knees in the foremoſt legs.
5. The hough, leg, or ſhank; reaches from the chambrel to the fetlock, or paſtern-joint of the foot.
6. The ſmall of the leg; is the ſmall part of the legs, both in the hinder and fore-legs.
7. The foul of the leg.
8. The back-ſinews of the leg, is the back of the leg, above the fetlock.
9. The paſtern, fetlock-joint, or ancle; is the joint in the fetlock, which bends in all the feet forwards.
10. The coronet; is the foot above the hoof of the ancle-joint, ſo called in all the feet.
11. The curb.

12. The

12. The ſhoulder; is that part which extends from the withers to the top joint of the thigh.

13. The thigh; reaches from the bent of the thigh to the knee.

14. The farther leg before; is the right leg before.

15. The next, or nearer leg before; is the left leg of the riſing ſide before, or the riſing ſide.

As to the Feet.

1. The hoof, or horn.

2. The coffin; is the hollow of the hoof in which the foot is fixed, the foot fallen off.

3. The fruſh; is the tender part of the hoof next the heel.

4. The ſole of the foot.

5. The frog of the feet; which ſome call the ball of the foot.

6. The rift of the hoof; is that part that is pared or cut off, it being too long grown; the ſpace between the fruſh and the heel.

7. The heel; is the riſing in the middle of the ſole; the narrow heel.

8. The toes; are the fore-parts of the hoofs, the quarters, the inſides of the hoofs.

9. The paſtern, or feet; is that part under the fetlock, to the hoof.

Parts of a Horſe's Body proper to bleed in.

It is uſual to bleed horſes in the jugular veins, which lie on each ſide of the neck, for the farcy, mange, repletion, and ſeveral other diſtempers; and alſo by way of repetition twice a year, to all horſes that feed well and labour but little.

Blood is uſually taken from the temples, with a ſmall lancet, for bites or blows on the eyes.

Farriers have a lancet made on purpoſe for opening of veins beneath the tongue, for head-aches, or for being diſguſted or over-heated by exceſſive labour, or for cholics, and the vives.

It is uſual to bleed horſes in the griſtle of the noſe, without any regard whether they hit the vein or not; and this is alſo for cholics, vives, and being much over-heated.

Horſes are let blood in the middle of the palate, above the fourth bar, with a lancet or ſharp horn, when they have been diſguſted, haraſſed, or over-heated and dull.

Blood is taken from the baſilick, or thigh veins of horſes, for ſtrains in the ſhoulders, or the mange in thoſe parts.

Horſes blooded in the paſterns, with a fleam or a lancet, for ſtrains or infirmities in the hams or knees.

They are let blood in the toes, with a buttrice, or drawing iron, for beating in the feet, and infirmities in the legs, ſuch as ſwellings and oppreſſions of the nerves.

The flank veins are ſometimes opened with a ſmall lancet made for that purpoſe, for the farcy.

Blood is drawn with fleams in the flat of the thighs, for blows and ſtrains in the haunches.

They bleed in the tail or dock, with a long lancet, for a fever and purſineſs.

PARTRIDGES, being naturally a cowardly, fearful, ſimple bird, are eaſily deceived or beguiled with any device whatever, by train-bait, engine, call, ſtale, &c.

I ſhall in the firſt place begin to conſider their haunts, which are not certain, but various; any covert will ſerve their turn, and ſometimes none at all.

The places they delight in moſt are corn-fields, eſpecially whilſt the corn grows, for under that cover they ſhelter and breed; neither are thoſe places unfrequented by them when the corn is down, by reaſon of the grain they find there, the height of which they delight in, being to them as a covert or ſhelter. When the wheat ſtubble is much untrodden; and they will, in the furrows, amongſt the clots, brambles, and long graſs, hide both themſelves and coveys, which are ſometimes twenty in number, nay, thirty in a covey.

When the winter-ſeaſon is arrived, and theſe ſtubble fields are ploughed up, or over-ſoilded with cattle, partridges reſort into the upland meadows, and lodge in the dead graſs, or fog under hedges amongſt mole hills, or under the roots of trees; ſometimes they reſort to coppices and under-woods, eſpecially if any corn-fields are adjacent, or where grows broom, brakes, fern, &c.

In the harveſt-time, when every field is full of men and cattle, in the day time, you will find them in the fallow-fields which are next adjoining to the corn-fields, where they lie lurking till evening or morning, and then they feed among the ſheaves of corn.

When you know their haunts, according to the ſituation of the country and ſeaſon of the year, your next care muſt be to find them out in their haunts, which is done ſeveral ways. Some do it by the eye only; and this art can never be taught, but learned by frequent experience, diſtinguiſhing thereby the colour of the partridge from that of the earth, and how, and in what manner they lodge and couch together; by which means you may come near enough to them, they being a very lazy bird, and ſo unwilling to take the wing, that you may almoſt ſet your foot upon them before they will ſtir, provided you do not ſtand and gaze on them, but be in continual motion, otherwiſe they will ſpring up and be gone.

Another way to diſcover them, is by going to their haunts very early in the morning, or at the cloſe of the evening, which is called the jucking-time, and there liſten for the calling of the cock-partridge, which is very loud and earneſt, and after ſome few calls the hen will anſwer, and by this means they meet together, which you may know by their rejoicing and chattering one with another; upon hearing of which take your range about them, drawing nearer and nearer to the place where you heard them juck in; caſting your eye towards the furrows of the lands, and there you will ſoon find where the covey lies.

The beſt, ſureſt, and eaſieſt way for finding of partridges, is by the call, having firſt learned the true and natural notes of the partridge, knowing how to tune every note in its proper key, applying them to their due times and ſeaſons.

Being perfect herein, either mornings or evenings, (all other times being improper) go to their haunts, and having secured yourself in some secret place where you may see and not be seen, listen a while if you can hear the partridges call, if you do, answer them again in the same notes, and as they change or double their notes, so must you in like manner; thus continue doing till they draw nearer and nearer to you: having them in your view, lay yourself on your back, and lie without motion, as if you were dead, by this means you may know their whole number.

How to take them with nets.

The nets for taking of partridges must be every way like your pheasant nets, both for length and breadth, except that the meshes must be smaller, being made of the same thread, and dyed of the same colour.

Having found out the covey, draw forth your nets, and taking a large circumference, walk a good round pace with a careless eye, rather from than towards them, till you have trimmed your nets, and made them ready for the purpose; which done, you must draw in your circumference less and less, till you come within the length of your net, then pricking down a stick about three feet long, fasten one end of the line to your net, and make it fast in the earth as you walk about, for you must make no stop or stay; then letting the net slip out of your hands, spread it open as you go, and so carry and lay it all over the partridges.

If they should lie straggling, so that you cannot cover them all with one net, then draw forth another, and do with that as you did with the former; and so a third if there be occasion: having so done, rush in upon them, who being affrighted, will fly up, and so be entangled in the nets.

How to take them with Bird-lime.

Get the largest wheat-straws you can, and cut them off between knot and knot, and lime them with the strongest bird-lime. Go to the haunts of partridges, and call; if you are answered, prick at some distance from you your lime-straws; in many cross-rows and ranks, cross the lands and furrows, taking in two or three lands at least, then lie close and call again, not ceasing till you have drawn them towards you, so that they be intercepted by the way by your limed straws, which they shall no sooner touch but they will be ensnared; and by reason they all run together like a brood of chickens, they will so besmear and daub each other, that very few will escape.

This way of taking partridges is only to be used in stubble-fields, from *August* till *Christmas:* but if you will take them in woods, pastures, or meadows, then you must lime rods, the same as for pheasants, and stick them in the ground after the same manner.

To drive Partridges.

The driving of partridges is more agreeable than any other way of taking them: the manner of it is thus:

Make an engine in the form of a horse, cut out of canvas, and stuff it with straw, or such like matter, as in plate XV. With this artificial horse and your nets, go to the haunts of partridges, and having found out the covey, and pitched your nets below, you must go above, and taking the advantage of the wind, you must drive downward: let your nets be pitched slope-wise, and hovering. Then having your face covered with something that is green, or of a dark blue, you must, putting the engine before, stalk towards the partridges with a slow pace, raising them on their feet, but not their wings, and they will naturally run before you.

If they chance to run a by-way, or contrary to your purpose, then cross them with your engine, and by so facing them, they will run into that track you would have them; thus by a gentle slow pace, you may make them run and go which way you will, and at last drive them into your net.

To take Partridges with a Setting-dog.

There is no method of taking them so good as by help of a setting-dog, wherefore, before we proceed to the sport, you are to understand what few sportsmen but already know, that a setting dog is a lusty land-spaniel, taught by nature to hunt the partridges more than any chase whatever, running the fields over with such alacrity and nimbleness as if there was no limit to his fury and desire, and yet by art, under such excellent command, that in the very height of his career, by a hem or sound of his master's voice, he shall stand, gaze about him, look in his master's face, and observe his directions, whether to proceed, stand still, or retire: nay, when he is even just upon his prey, that he may even take it up in his mouth, yet his obedience is so framed by art, that instantly he will either stand still, or fall down flat on his belly, without daring to make any noise or motion till his master comes to him, and then he will proceed in all things to follow his directions.

Having a dog thus qualified by art and nature, take him with you where partridges haunt, there cast off your dog, and by some word of encouragement that he is acquainted with, engage him to range, but never too far from you; and see that he beats his ground justly and even, without casting about, or flying now here, now there, which the mettle of some will do, if not corrected and reproved; therefore, when you perceive this fault, you must instantly call him in with a hem, and so check him that he dare not do the like again for that day; so he will range afterwards with more temperance, frequently looking in his master's face, as if he would gather from thence whether he did well or ill.

If in your dog's ranging you perceive him to stop on a sudden, or stand still, you must then make up to him, (for without doubt he hath set the partridge) and as soon as you come to him, command him to go nearer to it, but if he goes not, but either lies still or stands shaking his tail, and now and then looking back, then cease from urging him further, and take your circumference, walking fast, looking straight before the nose of the dog, and

and thereby see how the covey lies, whether close or straggling.

Then commanding the dog to lie still, draw forth your net, and prick one end to the ground, and spread your net all open, and so cover as many partridges as you can; which done, make in with a noise and spring up the partridges, which shall no sooner rise but they will be entangled in the net. And if you let go the old cock and hen, it will be a means to increase your sport. *See* GAME LAWS.

PASSADE, is a tread, or way, that a horse makes oftener than once upon the same extent of ground, passing and repassing from one end of its length to the other, which cannot be done without changing the hand, or turning and making a demi-tour at each of the extremities of the ground.

PASSAGE; to passage a horse, is to make him go upon a walk or trot upon two pastes or treads, between the two heels, and side-ways, so that his hips make a tract parallel to that made by his shoulders.

But for a passage there is so much art required, that a horse is two or three years in breeding to that manage, and of six horses, it is very much if two of them succeed in it.

PASSAGE OF HORSES BY SEA. A person who took a stallion over to *America, upon deck*, gives cautions against that as a very dangerous practice. Previous to shipping horses, their shoes should be taken off, and their toes shortened. In a long passage, they ought frequently to have mashes; sometimes with brimstone and cream of tartar, equal quantities, mixed in them.

PASTES FOR BIRDS, this is a general food, and is made as follows:

Grind half a peck of the finest horse beans well dried, very fine, and boult them through a fine boulter, such as is used for wheat meal; or if your stock of birds do not require so great a quantity, take in the following proportion, *viz.*

Of the said meal, two pounds; of the best sweet almonds blanched, one pound; beat these very well in a mortar, to which put a quarter of a pound of fresh butter that is entirely without any salt: all of which put into a copper saucepan, well tinned, mixed all well together, and set the pan over a charcoal fire, that the paste may not smell of smoak, and keep continually stirring it all the while it stands upon the fire with a wooden-spoon, that so it may boil gradually, and not burn-to; then take four yolks of eggs, and a little saffron, and when the butter is melted, having some virgins-honey ready, drop in some by degrees, continually stirring it, that all the ingredients may incorporate.

This being done, take a cullender, made with such holes as will let through the compound, which should be thin, and not lie in lumps; and the remainder of the paste is to beat in a mortar again, and if it will not pass through the holes, set it upon the fire again, and let it boil gently, and then try to force it through the cullender, till it comes to such a quantity and quality as is fit for the number of birds you keep. Repeat this as often as you have occasion.

This paste may be mixed with any bird-meat whatever, and is a strengthening cleansing diet, which will continue good for six months if you pour a little melted clarified honey upon it.

PASTES FOR FISHING, are variously compounded, almost according to the angler's own fancy; but there should always be a little cotton wool, shaved lint, or fine flax, to keep the parts of it together, that it may not fall off the hook. White bread and honey will make a proper paste for carp or tench. Fine white bread alone, with a little water, will serve for roach and dace; and mutton suet and soft new cheese for a barbel. Strong cheese with a little butter, and coloured yellow with saffron, will make a good winter paste for a chub.

Other pastes are made as follow: Take bean-flour, or, if that is not to be got, wheat flour, and the tenderest part of the leg of a young rabbit, whelp, or kitten; as much virgin-wax and sheep suet: beat them in a mortar till they are perfectly incorporated; then with a little clarified honey, temper them before the fire into a paste. Some omit the bean and wheat-flour, others the virgin-wax and sheep suet, only when they use it for carp.

Take sheep's blood, cheese, fine white bread and clarified honey: make all into a paste.

Take cherries without stones, sheep's blood, fine bread, and saffron to colour it with, and make a paste.

Take fat old cheese, strong rennet, mutton kidney-suet, wheat-flour, and aniseed-water; beat them all into a paste. If it be for chub, add some roasted bacon.

Take the fattest old cheese, the strongest rennet, mutton kidney suet, and turmeric reduced into a fine powder; work all into a paste. Add the turmeric only till the paste becomes of a very fine yellow colour. This is excellent for chub, as are also the two following:

Take some of the oldest and strongest *Cheshire* cheese you can get, the crumb of a fine manchet, or *French* roll, and some sheep's kidney-suet; put these in a mortar, and beat them into a paste, adding as much clarified honey as will be sufficient to sweeten it.

Take a few shrimps or prawns, pull off their shells and skins, and beat the clear meat in a mortar, with a little honey, till it becomes a paste. When you bait with a piece of this, let the point of the hook be but lightly covered.

Take fine flour and butter, with saffron to colour it; and make a paste for roach and dace.

But among all the variety of pastes, there is none so often used as the simple and plain one made with white bread and milk, which requires only clean hands.

The following observations concerning pastes may be of use to a young angler, being all founded on experience:

In *September*, and all winter months, when you angle for chub, carp, and bream, with paste, let the bait be as big as a large hazle nut: but for roach and dace, the bigness of an ordinary bean is sufficient.

You may add to any paste, assa fœtida, oil of polybody of the oak, oil of ivy, oil of petre, gum ivy, and many other things, which sometimes wonderfully increase your sport.

When.

When you angle with paste, you should chuse a still place, and use a quill float, a small hook, a quick eye, a nimble rod and hand. The same rules hold in regard to all tender baits.

N. B. The spawn of any fish (salmon especially) beat to a paste, or boiled till so hard as to hang on the hook; or the flesh of any fish beat to paste, or cut into small bits, is a choice bait for almost all fish.

Take coculus indicus, finely pounded, four ounces, mix it with cummin, old cheese, and wheat-flour, about two ounces of each; work them into a paste with white wine, then divide it into pieces about the size of pease, which throw into standing waters; all that taste will presently be stupified and swim to the top, so that you may catch them with your hands.

N. B. Some use brandy instead of wine, and put nux vomica, finely grated, into the composition.

Take goat's blood, barley-meal, and lees of sweet white wine, mix them with the lungs of a goat, boiled and pounded fine; make the whole into pills, which throw into ponds or pits, and you may soon catch the fish, who will prove intoxicated. *See* ANGLING.

PASTERN OF A HORSE, the distance between the joint of the mane and the coronet of the hoof.

This part should be short, especially in the middle-sized horses, because long pasterns are weak, and cannot so well endure travel: some have pasterns so long and flexible, that the horse in walking almost touches the ground with them, which is a great imperfection, and a sign of little or no strength, such horses not being fit for any kind of toil and fatigue.

PASTERN JOINT, the joint next a horse's foot, which is said to be crowned, when without being galled or hurt there is a swelling round it beneath the skin, in form of a circle, about half the breadth of one's finger.

It proceeds from a humour gathered by much travel, and shews that the horse's legs have been too much used.

When the pastern-joint swells after travelling, chafe it every morning and evening with a mixture of two parts of brandy and one of oil of nuts.

If the swelling be large, apply the red honey charge with a convenient bath; and if it be hard, lay on a poultice of rue boiled in thick wine.

PATER-NOSTER-LINE, [in Angling] is when six or eight very small hooks are tied along a line, one half foot above each other.

PATTIN-SHOE, a horse-shoe so called, under which is soldered a sort of half ball of iron, hollow within: it is used for hip-shot horses, and put upon a sound foot, to the end, that the horse not being able to stand upon that foot without pain, may be constrained to support himself upon the lame foot, and so hinder the sinews from shrinking, and the haunches from drying up.

They likewise clap pattin-shoes upon horses that are sprained in the shoulders.

PAW THE GROUND. A horse paws the ground, when his leg being either tired or painful, he does not rest it upon the ground, and fears to hurt himself as he walks.

PEACOCKS, are birds that serve rather to delight the eye than for profit: the best quality belonging to them is, that they cleanse and clear the yard from venomous creatures, such as snakes, adders, toads, newts, *&c.* which are their daily food; whence their flesh becomes very unwholesome, and is used at great feasts more as a rarity than upon any other account. If you roast one of them ever so dry, set it by, and look on it the next day, it will seem blood-raw, as if it were not roasted at all.

The hens generally lay their eggs abroad in hedges and bushes, where the cock cannot find them, who otherwise will break them; therefore as soon as she begins to lay, separate her from the cock and house her till she has brought forth her young, and the coronet of feathers begin to rise in their foreheads, then turn them abroad, and the cock will cherish them, but not before. The hen's sitting-time is just thirty days, and then any sort of grain, with water, is good for her: before the chickens go abroad, feed them with good green cheese, and barley-meal, with water, and afterwards the dam will provide for them. The best time to set a pea-hen, is at the new moon, and if you set hen-eggs with hers she will nourish them both equally: the chickens are so very tender, that the least cold will kill them, therefore they should not go abroad but when the sun-shines. As for the feeding of peacocks, the labour may be saved, for if they go in a place where there is corn stirring, they will take care to have part: and as their flesh is seldom or never eaten, there needs no care to be taken for the fattening them.

PEARCH, } is a fish that is hook-backed, some-
PERCH, } thing like a hog, and armed with stiff gristles, and his sides with dry thick scales. He is a very bold biter, which appears by his daring to adventure upon one of his own kind with more courage than even the pike.

Some say there are two sorts of pearches, the one salt water and the other fresh; the first has but one fin on his back, the latter two, which is more than most fishes have.

They spawn but once a year, in *February* or *March*, and seldom grow to above two feet in length: his best time of biting is when the spring is far spent, at which time you may take at one standing all that are in one hole, be they ever so many.

His baits are a minnow, or a little frog: but a brandling is best, if well scoured: when he bites give him time enough.

He biteth well all day long in cool cloudy weather, but chiefly from eight in the morning till ten, and from three till about six in the evening.

He will not bite at all times of the year, especially in winter, for then he is very abstemious, yet if it be warm he will bite then in the middle of the day, for in winter all fish bite best in the heat of the day.

If you rove for a pearch with a minnow, it must be alive, sticking your hook through his upper lip, or back fin, and letting him swim about mid-water, or somewhat lower, for which purpose you must have a pretty large cork, with a quill on your line.

You must have a strong silk line, and a good hook armed

armed with wire, so that if a pike should come, you may be provided for him; and by this means several have been taken. Some carry a tin pot, or vessel of about two quarts or three pints, in which they keep their minnows or gudgeons alive; the lid of the pot is full of little holes, so that you may give them fresh water without opening it, which should be about every quarter of an hour, lest they die.

If you take a small casting-net with you, you may at a cast or two take baits enough to serve the whole day, without further trouble.

When you fish with a frog, you must fasten the hook through the skin of his leg, towards the upper part thereof.

The pearch is none of the leather-mouthed sort of fishes, and therefore when he bites give him time enough to pouch his bait, lest when you think all sure he breaks hold, and so you lose your fish.

The best place to fish for him is in the turning of the water, or eddy, in a good gravel scour, where you will not fail of them, and ruffs.

If you would take a pearch, you must take notice, that this fish feeds well and bites freely. Bait the ground where you fish, over night, with lob-worms chopt in pieces; and in the morning when you come to the place, first plumb the depth, then gage your line, and bait your hook with a red knotted worm, or a minnow, which is reckoned the best; put the hook in at the back of the minnow betwixt the fish and the skin, that the minnow may swim up and down alive, being buoyed up with a cork or quill, that the minnow may have liberty to swim a foot off the ground.

These directions being carefully followed, the angler need not fear his desired success.

PEARL; called also pin, and web, or any unnatural spot or thick film over a horse's eye; proceeds from some stroke or blow received, or from the fire or dam.

The pearl is known by a little round thick white spot; like a pearl, (from which it took its name) growing on the sight of the eye.

As for the cure, it is the same as for BLOOD-SHOTTEN EYES, *which see*.

PEARL, (with Hunters) is that part of a deer's horn which is about the bur.

PEDIGREE OF A HORSE. A true racing pedigree, according to the rule of the present time, ought to prove under the hand of the breeder, that the horse has descended from ancestors of genuine racing blood, without the intervention of a single bastard cross. If the pedigree be long, it is common to take it for granted that there is blood sufficient, although there be no mare mentioned in it, which has proved her blood by her having actually raced; but usually all the horses are reputed runners or brothers of such. The greater number of mares which have raced, contained in a pedigree, the surer and more valuable, no doubt, it must be, particularly if the last-mentioned be specified as a reputed racer, or a natural Arabian or Barb. A pedigree of one single descent is held sufficient, when the sire and dam are named as reputed and tried runners; otherwise a short pedigree of three or four descents, would not constitute a horse thorough-bred; it might serve for a hunter.

It is yet easy to conceive how liable the pedigree of a horse must be both to error and imposition, and that the best proof of true blood must ever consist in performance. Various accidental bastard crosses have occurred in our racing breed, at different periods, chiefly distant ones; and they are frequently easy enough distinguishable in the figure of the stock, by a critical eye.

PELT. The skin of the beast.

PERAMBULATION OF A FOREST, is the surveying or walking about the forest by justices, or other officers thereto appointed, in order to set down the limits or bounds of it.

PESATE, PESADE, OR POSADE, is when a horse in lifting or raising his fore-quarters, keeps his hind legs upon the ground without stirring, so that he marks no time with his haunches till his fore-legs reach the ground.

This motion is the means to fix his head and his haunches, to make him ply and bend his fore-thighs, and to hinder him from stamping and clattering with his feet.

PESTILENT CONSUMPTION, in horses, is a distemper which happens to a mare, when she is near her foaling time, by reason of a phlegmatic humour that contracts about the matrix, occasioned by gross feeding; and is known by her dulness, pining, and desire to be laid, and the like. Remedy:

Take a pint of aqua vitæ, half an ounce of tobacco, and a sprig or two of spurge-laurel; boil them together; and then, straining out the liquid part, give it her fasting, and it will oblige her to cast out the mass of phlegm, or at least the cause that disturbs her: but, by reason she will be somewhat sickish when she has cast, give her half a pint of sallad oil, and the like quantity of canary, and keep her in a warm stable, with mashes and good dry meat, a day or two.

PHEASANT, a bird about the bigness of a cock, having a crooked bill and feathers of various colours; its flesh is delicious, and much coveted. To judge aright of this bird for eating, a cock, if young, has a short spur; if old, a sharp small spur; see that it be not cut or pared; if fat, it has a vein on the side of the breast under the wing; if new, a fat firm vent; if you touch it hard with your finger, it will peel; then if young it has a smooth leg, and a fine smooth grain on the flesh; if old, it has a rugged wrinkled grain on the flesh, and full of hairs like an old yard hen; if she be full of eggs, she will have a fast and open vent; if not full, a close vent.

PHEASANT-TAKING; a rural diversion, performed with nets in their crowing time, which is about the end of *February*, and in *March*, before they begin to breed: it is done either generally or particularly; the first is, when the whole eye, *viz.* the old cock and hen, with all their young ones, or powts, as they flock or run together in thick woods or coppices, are taken; or particularly, when none but the old, and such of the young as are of age fit for coupling, are taken; so that you cannot have any assurance with your nets to strike at

at more than one or two at a time; for the pheasant is of a melancholy, sullen disposition, and when once they have coupled, do not accompany in flocks as other birds.

In order to the taking pheasants with the greater ease, you must be acquainted with their haunts and usual breeding-places, which are in young, thick and well grown coppices, free from the annoyance of cattle or path-ways; for being of a very timorous nature, they esteem the strength of their covert their only safety, and do not abide or breed in open or plain fields, nor under the covert of corn fields, low shrubby bushes, or in large and tall trees.

Having found their haunts, next you are to find their eye, or brood; and here you are to observe, that pheasants come out of the woods and coverts thrice a day, to feed in fresh pastures, green wheat, or other grain, and that is about sun-rising, about noon, and a little before sun-set. Now the course to be followed, is to go to that side of the wood where you suppose they make their sallies, and watch the places where they come out; or by searching their haunts; for you may see the young powts in that season flock and run together after the hen like chickens. Again, if you go to their haunts early in the morning or late in the evening, you will hear the old cock and hen call their young ones, and the young ones answer them, and accordingly direct your path as near as you can to the place where they are, then lie down as close as possible, that you may not be discerned; but withal, observe how they lodge together, the better to know how to pitch your nets with the greater advantage, both of wind, weather, and place; and take care that all be done as silently as possible, otherwise they will betake themselves to their legs, and not to their wings, unless forced to it by a close pursuit.

But the most certain way to find them out, is to have an artificial pheasant-call, wherein a person should be very expert in the imitation of their notes, and the time when, and to what purpose they use them, which calls are much the same as hens use in clucking their chickens.

The chief time for using the call, is in the morning early, or about sun-set, at which time they seek their food, and then the note must be to call them to food; but though these are the best times, yet the call may be used at other times, only altering the notes for calling them together, or the like.

Having the perfect use of the call, the knowledge of their haunts, and the times to take them, chuse some private place not to be discovered, and then call at first very softly, lest any should be lodged very near you, and be affrighted at your loud note; but if nothing reply, raise your note higher and higher till it be extended to the utmost compass, and if any be within hearing they will answer in as loud a note as your's, provided it be tunable, or else all will be spoiled.

As soon as the pheasant answers, if it be at a good distance, creep nearer and nearer, still calling, but not so loud; and as you advance nearer, so will the pheasant to you, so that you will come in sight of her, either on the ground or at perch, always imitating her in her true note; then cease calling, and spread your net between the pheasant and yourself in the most convenient place you can find, making one end of the net fast to the ground, and holding the other in your hand by a long line, so that when any thing strains it, you may pull the net close together; which done, call again, and as soon as you perceive the pheasant come under your net, raise up and shew yourself, upon which being affrighted, she will spring, and so become entangled in the net.

In case you have divers pheasants answer the call, and that from several parts of the wood, then keep your first station, and as you hear them to make towards you, so get your nets ready, spreading them conveniently about you, viz. one pair of nets on one side and another on the other, lying close without any noise, only of your call, till you have allured them under your nets, and then stand up to affright them as aforesaid, that they may be entangled in your nets.

Another way to take pheasants, which is reckoned much better than the former, is, to be provided with a stale pheasant, a live cock, which must be secretly tied down to your net, who by his crowing will draw others in: you must lie concealed in some bush or secret place, and when you see any pheasant come to your net, then draw your line, and the net will fall on him and take him.

To take pheasants by snares; when you have found their passage out of the wood to their usual places of feeding, there plant a little stake, with a couple of snares of horse-hair, one to lie flat on the ground for their feet, and the other about the height of their head, to take them by the neck; and in case there should be more passes than one you must do the like to every one of them: then fetch a compass about, and when you are in a direct line with the pheasant and the snare that you have fitted, there make a gentle noise to affright them.

If by their dunging and scraping you perceive that they frequent any place, you may then make use of such hedge-rows as are directed to take fowl with lines and bird-lime, only plant your running-lines from them of a convenient height, and still place one to lie flat to entangle their legs.

To take pheasants or partridges, and so preserve the game in a man's own ground: when you perceive any eye of pheasants, or covey of partridges, frequent such and such ground, go thither, and in some place thereof, distant from a hedge, bush, or gate, about forty or fifty paces, pitch up four sticks, each a foot long, in a square, and in the middle of the sticks scatter four or five handfuls of oats, barley, or wheat, and as you walk through the grounds from the sticks, scatter a few corns, which may serve as a train to draw on the game to the great heap in the middle of the sticks: now the pheasants and partridges coming to feed according to their custom, will soon find out the train, and consequently the great bait; they will not fail to return thither next morning, in hopes of another repast, against which time let it be laid ready for them, and pitch by every one of the four sticks, a bush of furze; if they eat the second time, which you may discern by their dung, notwithstanding the

the furze-bushes, then against the next coming cross some lines of packthread, in form of a net; and if for all this they come and eat, you may be sure to take them when you please with the following device. *See* Plate IX.

Take away the sticks, furze-bushes, and packthread, and there pitch the net described as follows:

The four main supporters of the net, A, B, C, D, must be fixed strongly in the ground, that the net may be lightly spread on the top: the four sides of the net must be ordered in the same manner as shall be now directed by the example of one of them, according to the description of the aforesaid figure; lift up the side of the net designed by the letters E, F, over the top of the net that is spread, for the side must lie flat, but stand sloping like a pent-house, supported by small twigs, the bottom fastened in the earth, and the cord or verge of the net resting on them; then place the four furze-bushes at each corner of the net, the more to embolden them: and be sure the running-cord of the net be exact and right; the two ends thereof must be tied to a strong cord, described by the letter G, which cord must reach to the next bush or shelter where you lie concealed, but within view of the net; when all is fixed, spread the bait as formerly, but try once or twice how the net will draw, that upon occasion all may be in good order; the best time to wait their coming is at break of day, when they are all busy in eating the bait; then draw your line with a quick motion, and presently fix it to the bush where you are; and make all possible haste to the net to prevent their escaping.

If you would preserve a breed in your grounds, kill the cocks, and keep the hens till towards lent, in some convenient room, and then put them out into your grounds, and they will soon find cocks for a breed.

There is another way found most effectual for the taking of pheasants in the winter-season, provided there is no snow: get a net in the form of a casting-net, but larger, with the meshes about five inches wide; then take some peas or wheat, and knowing their haunts, which will be in young coppices of about three or four years growth; in such places seek out their path, by their droppings or dung, which paths generally lead from the young coppices to those that are older; and having found out any path, lay about a pint of the corn in the place, observing where you lay it, so that they may come to eat; thus do for several days for about a fortnight, by which time they will be so accustomed to it that they will come to expect some food, and by this means, all, or most of the pheasants in that part, will be gathered to it.

Having thus trained them, and that you certainly know when you come in the morning that they have been there, which will be found by their eating and the dung, then and in such places set your nets, only one in one place, which is done thus, tie the top of your nets to a bough, then spread it at the bottom, and peg it down to the ground, on all parts except one, which must be raised up above a foot and a half, like an arched door, with an ashen stick; also fix to the said arch several rods made of hazle, with the taper ends to the earth, within the net, so that the pheasants may come in by parting the sticks, but not get out again.

Having thus set your nets, which must be made of coarse thread, such as rabbit-bays, and of a tanned colour, by putting them into a tan-pit, cover your nets with boughs to prevent them from seeing them; and be sure to set them some distance in the wood. The use of the nets is from the beginning of *May* to the latter end of *October*.

PHEASANT-HAWKING. A rural diversion, managed with a goshawk in coverts, of which none but those of a strong and able body, with spirit and courage, are fit; for this flight is different from that in the champaign fields, where the hawk and the game are always in sight; so that you are to make her to the pheasant and such like sort of fowl, that always frequent the woods, coverts, and the like obscure places, which hinders the sight, which should be your guide in the flight. For the better effecting of this, you must be very circumspect as to the place you first enter in, to the end she may be well guarded, and kept from taking any dislike or offence at the dogs, which if she does at the first entrance, it will be difficult to bring her to endure them again; therefore to divert any such ill quality at first, she must be better managed, followed and governed, than in the field, so that if you would have her make a perfect hawk, and to be bold and venturous in thick woods with the Falconer, the dogs, and the game, you must make a good choice of the time, place, and dogs.

The time should be early in the year, about *January*, *February*, or *March*, before the approach of the leaf; but the best months for pheasant-hawking, are *November*, *December*, and *January*, after which you must be preparing her for the mew, that she may be early mewed, to fly in the field the next season for partridges.

Having made choice of the place to fly your hawk in, and that you have let her go into her flight, be sure to command your dogs behind you until you have found her, and if she has killed the game, it is sufficient; if not, but that you find her on the ground, out of an eagerness of the sport (as many will be at the first entrance) if there be any tree that she may well see from it, set her thereon, otherwise keep her on your fist, and beat for it again; then if she flies and kills it, keep the dogs back until you have found her, and suffer her to plume and take her pleasure for a time; then gently call in your dogs and walk about her, encouraging her with your voice, that she may be acquainted with the noise; and when you see it convenient, stoop to it upon your knees, and rending the chaps, give her blood in the throat, which will much please her; pare away also the hard brain-pan from the rest, and give her the head in her foot to eat, the ground hiding the body from her; then having your dog (which must be under great command) close by, when she has done, and begins to look about her, then throw the pheasant amongst them, that she may, together with some words of rebuke from you, make them give way with fear unto her; but let them

be in her sight, and having sufficiently taken her pleasure, take the pheasants gently from her, leaving the head in her foot, and let her eat it on the ground where the quarry lay, only reserving a little to take her to your first withal; then put on her hood and reward her, by which means you will much win her love to you. She will, according to these directions, with a good keeper, fair flying, and two or three staunch spaniels, be brought in a short time, to good perfection in this sport.

Again, in order to embolden your hawk, to make her take a pheasant from the perch with courage, observe the directions following: before you fly her provide a dead pheasant or live one, which is best; take it with you into the wood, and when you are disposed to call your hawk for her supper, and as she is drawing and attending after you for the same, having a convenient pole ready for your purpose, call your spaniels about you to make them bay, and suddenly breaking the neck of the pheasant, lift it up upon a bough, that the hawk may have sight of it, and with your voice call and encourage her to come in and seize it, and if she pulls it down, be sure that you rebuke the dogs in such manner, and keep them so at command, that they give her way at her descending, and that she may plume and take her pleasure thereon, which will so embolden her in a small time, that when she sees a pheasant take perch, she will immediately seize it and pull it down; nor will she be afraid of the dogs, for when they are once managed and brought into good subjection, they will know their duty, and be fearful of transgressing, so that if you are absent you may venture them, but remember, by all means, to have no strange dogs, for one may spoil your sport, by drawing the rest into errors, and causing them to hunt after any thing; nor is it convenient to hunt with many spaniels, for two or three couple are enough to range and beat about a large wood, and to perch a pheasant.

PHEASANT-POWTS. Young pheasants; for the driving and taking of which within nets, when you have found out an eye of them, place your nets cross the little paths and ways they have made, which are much like sheep tracks; and, if possible, you should find out one of their principal haunts, which may be easily known by the bareness of the ground, their mutings, and the feathers which lie scattered about; and always take the wind with you, for it is their custom to run down the wind; place the nets hollow, loose, and circular-wise, the nether part must be fastened to the ground, and the upper side lie hollow, so that when any thing rushes in, it may fall and entangle it.

Having so fixed the net, go to the haunts, and if you find the eye scattered, with your call draw them together, and when you find they begin to cluck and pipe to one another, then forbear calling, and take an instrument, by some called a driver. (*See* Plate V. fig. 6,) which is made of strong white wands, or osiers, such as basket-makers use, which must be set in a handle; in two or three places it must be twisted or bound about with small osiers, according to the figure. With this driver, so soon as you see the pheasants gathered together, make a great noise on the boughs and bushes about you, which will so frighten them, that they will all get close together, and run away a little distance, and stand to hearken; then make the same noise a second time, which will make them run again, and continue the same till you have driven them into your nets, for they may be drove like sheep; but if it happens that they take a contrary way, then make a croaking noise, as it were in their faces, which will presently turn them the right way, as you would have them; but in using the driver, first observe secresy, in keeping yourself out of their sight, for if they espy you, they will run and hide themselves in holes, under shrubs, and will not stir till night. Secondly, take time and leisure, for rashness and overmuch haste spoils the sport. *See* PHEASANTS.

PHLYCTÆNE IN HORSES. A disorder after inflammation of the eyes; there sometimes remains either pustules filled with purulent matter (these are called pustules) or they are filled with a transparent humour, and then they are called phlyctæne.

When pustules arise on the tunica conjunctiva, they are reddish at the first, and afterwards white; but when they are on the cornea, they are dusky at the first, and, in time, turn white.

The phlyctæne are transparent, hence they take the appearance of the part they lie on; they are more superficial than the pustules, and are not so difficult to remove.

All the danger from pustules, and from phlyctæne, is their becoming ulcers of a bad kind, which heal with difficulty.

The cure is the same in both cases. In the begining you may attempt to disperse them; by washing them two or three times a-day with a solution of ten grains of saccharum saturni, in four ounces of rose-water: and when they give way, you may wash them with equal parts of brandy and water: but if they neither disperse nor burst soon, the best way is to open them with a lancet, and then dress them with the sapphire water.

Sapphire Water.

Take of lime-water, one pint: crude sal ammoniac, one drachm; let them stand in a copper vessel, or with a few bits of copper, until the water is of a blue sapphire colour.

PIAFFEUR, is a proud stately horse, who being full of mettle or fire, restless and forward, with a great deal of motion, and an excessive eagerness to go forwards, makes this motion; the more that you endeavour to keep him in, he bends his legs up to his belly: he snorts, traverses, if he can, and by his fiery action shews his restiveness, when some, though very improperly, say he dances.

Such horses as these, or such as are bred to passage upon a straight line, are much admired in carousals and magnificent festivals.

PICKER. HORSE-PICKER, is an iron instrument five or six inches long, bent or crooked on one side, and flat and pointed on the other, used by grooms to cleanse the

the inside of the manage horses feet, and pick out the earth and sand that has got into them.

PIGEON. A domestic bird, very well known, and fed in order to be eaten: I shall first mention those that are bred in pigeon or dove-houses; some there are, for want of the conveniency of such houses, that are bred in coops and dove-cotes; in general we reckon but two sorts of pigeons, the wild and the tame; the tame rough-footed ones differ not much from the wild, only they are somewhat bigger, and more familiar: the wild usually perch upon trees, being seldom seen on the ground, and are very good food.

By wild pigeons, are meant those that breed in woods, sea-rocks, &c. and by the tame, such as are bred in dove houses.

It is an observation made by a learned naturalist, that the pigeon is one of those birds which, from its great fecundity, has in some measure been reclaimed from a state of nature, and taught to live in habits of dependance. It is true, indeed, its fecundity seems to be increased by human assiduity, since those pigeons that live in their native state, in the woods, are not near so fruitful as those in our pigeon-houses nearer home. The power of increase in most birds depends not only upon the quantity, but also the quality, of their food; many instances may be shewn, that man, by a judicious alteration of diet, and supplying food in plenty, and allowing the animal a proper share of freedom, has brought some of those kinds which seldom lay but once a year, to become much more prolific.

The beautiful varieties of the tame pigeon are so numerous, that it would be a fruitless attempt to describe them all; for human art has so much altered the colour and figure of this bird, that pigeon-fanciers, by pairing a male and female of different sorts, can, as they express it, breed them to a feather. Hence we have the various names expressive of their several properties, such as, carriers, tumblers, powters, horsemen, croppers, jacobines, owls, nuns, runts, turbits, barbs, helmets, trumpeters, dragons, finnikins, &c. all birds that at first might have accidentally varied from the stock-dove; and, by having these varieties still improved by pairing, food, and climate, the different species have been propagated. But there are several species of the wild pigeon, which bear a near affinity to the stock-dove, yet differ sufficiently from it to require a distinct description. The dove-house pigeon breeds every month; but, when the weather is severe, and the fields covered with snow, it must be supplied with food. At other times it may be left itself; and generally repays the owner for his protection. The pigeon lays two white eggs, which produce young ones of different sexes. When the eggs are laid, the female sits fifteen days, not including the three days she is employed in laying, and is relieved at intervals by the male. The turns are generally pretty regular. The female usually sits from about five in the evening till nine the next morning; at which time the male supplies her place, while she is seeking refreshment abroad. Thus they sit alternately till the young are hatched. When hatched, the young only require warmth for the first three days; a task which the female takes entirely upon herself, and never leaves them except for a few minutes to take a little food. After this they are fed for about ten days with what the old ones have picked up in the fields, and kept treasured in their crops, from whence they satisfy the craving appetites of their young ones, who receive it very greedily.

This way of supplying the young with food from the crop, in birds of the pigeon-kind, differs from all others. The pigeon has the largest crop of any bird, for its size; which is also peculiar to its kind. In two that were dissected by an eminent anatomist, it was found, that, upon blowing the air into the wind-pipe, it distended the crop, or gullet, to an enormous size. This was the more singular, as there did not appear to be the least communication between those two receptacles. By what channel the air blew into the crop, we are wholly ignorant; but we have ocular demonstration, that these birds have a power of swelling the crop with air, and those called croppers distend in such a manner, that the bird's breast appears larger than its body. The necessity for it in these species is pretty clear, though the mechanism is not known. Pigeons live entirely upon grain and water: these, being mixed together in the crop, are digested in proportion as the bird lays in its provision. Young pigeons are very ravenous, which necessitates the old ones to lay in a more plentiful supply than ordinary, and to give it a sort of half-maceration in the crop, to make it fit for their tender stomachs. The numerous glands, assisted by air, and the heat of the bird's body, are the necessary apparatus for secreting a milky fluid; but, as the food macerates, it also swells, and the crop is considerably dilated. If the crop was filled with solid substances, the bird could not contract it; but it is obvious the bird has a power to compress its crop at pleasure, and, by discharging the air, can drive the food out also, which is forced up the gullet with great ease. The young usually receive this tribute of affection from the crop three times a day. The male for the most part feeds the young female, and the old female performs the same office for the young male. While the young are weak, the old ones supply them with food macerated suitable to their tender frame; but, as they gain strength, the parents give it less preparation, and at last drive them out, when a craving appetite obliges them to shift for themselves; for, when pigeons have plenty of food, they do not wait for the total dismission of their young; it being a common thing to see young ones fledged, and eggs hatching, at the same time, and in the same nest.

Though the constancy of the turtle-dove is proverbial, the pigeon of the dove house is not so faithful, and, having become subject to man, puts on incontinence among its other domestic qualities. Two males are often seen quarrelling for the same mistress; and, when the female encourages the freedoms of a new gallant, her old companion shews visible marks of his displeasure, quits her company, or, if he approaches, it is only to chastise her. Many instances have been known when two males, being dissatisfied with their respective mates, have thought fit to make an exchange, and have lived in peace and friendship with the new

objects of their choice. So rapid is the fertility of this bird in its domestic state, however incredible it may appear, that, from a single pair, fourteen thousand seven hundred and sixty may be produced in the space of four years. The stock-dove, however, very rarely breeds more than twice a year: for, as the winter months approach, their whole employ is for self-subsistence, so that they cannot transmit a progeny. But, their attachment to their young is much stronger than in those which often breed. This is owing, perhaps, to their affections being less divided by so great a number of claims.

Pigeons are very quick of hearing, have a very sharp sight, and when pursued by the hawk or kite, and are obliged to exert themselves, are exceedingly swift in flight. It is the nature of pigeons to love company and assemble in flocks, to bill in their courtship, and to have a plaintive note.

Mr. Duhamel asserts, "that pigeons do not feed upon the green corn, and that their bills have not strength enough to search for its seeds in the earth; but only pick up the scattered grains, which would be parched up by the heat of the sun, or infallibly become the prey of other animals." He further adds, "that, from the time of the sprouting of the corn, pigeons live chiefly upon the seeds of wild uncultivated plants, and therefore considerably lessen the quantity of weeds that would otherwise encumber the ground; as is manifestly evident from a just estimate of the quantity of grain necessary to feed all the pigeons of a well stocked dove-house." But the facts alledged by Mr. Worlidge and Mr. Lisle, in support of the contrary opinion, are incontrovertible. Mr. Lisle relates that a farmer of his acquaintance, who was a man of strict veracity, assured him he had been witness to an acre sowed with peas, and the wet weather prevented their being harrowed in, every pea was taken away in half a day's time by pigeons; and Mr. Worlidge says, "it is to be observed, that, where the flight of pigeons fall, there they fill themselves and away, and return again where they first rose, and so proceed over a whole piece of ground, if they like it. Although you cannot perceive any grain above the ground, they know how to find it, and consequently commit great depredations on the property of the farmer."

I shall now briefly mention the names and descriptions of those pigeons that are most esteemed, and proceed to give directions for their management.

The English Powter.—This bird derives its name from being originally bred in England, and is a cross breed between a horseman and a cropper; and frequently pairing their young ones with the cropper, has added great beauty to this bird, and raised its value among the fanciers.

Those composed of different colours are most esteemed, as the blue-pied, black-pied, red-pied, and yellow-pied. All these properties rise in estimation, according as they are more or less beautifully variegated.

The Dutch Cropper.—This pigeon was originally bred in *Holland;* the body is thick, clumsy, and short, as are also the legs, which are feathered down to the feet: they have a large pouch or bag hanging under their beak, which they can swell with wind, or depress, at pleasure; their crop hangs low, but is very large; they are so loose-feathered on the thighs, as to be stiled flag-thighed; they seldom play upright, and stand wide on their legs; they are gravel-eyed, and such bad feeders of their young, that, as soon as they have fed off their soft meat, it is necessary to place their young under a pair of small runts, dragons, or powting horsemen, who will rear them with more care than their real progenitors.

The Uploper—Is also a native of *Holland;* it nearly resembles the *English* powter in all its properties, only it is smaller; it has a round crop, in which it generally hides its bill; it has small slender legs, with its toes short and close together, on which it trips so exactly, when walking, as to leave the ball of the foot quite hollow; it plays very upright, is close thighed, and it is the custom of this pigeon, on approaching the hen, to leap to her with his tail spread, from whence the name uploper is derived.

The Parisian Powter—Though brought into *England* from *Brussels*, is originally a native of *Paris;* it partakes of the nature of the *English* powter, though it is not so well made; its body and legs are short; it has generally a long, but not a large, crop; and is thick in the girt.

The Powting Horseman.—This is what the fancy term a bastard-bred pigeon, and is produced between the horseman and the cropper; and, agreeable to the number of times that their young ones are bred over to the cropper, they have the appellation of first, second, or third, breed; and the more frequently this method is practised, the greater is the improvement the crop receives from it.

The Carrier—Is rather larger than most of the common-sized pigeons; their feathers lie very close, even, and smooth; their flesh is naturally firm, and their necks long and straight, so that, when they stand upright on their legs, they shew an elegant gentility of shape, far exceeding most other pigeons, who, when they stand, cringe themselves up in an uncouth manner. From the lower part of the head, to the middle of the lower chap, there grows out a white, naked, fungous, flesh, which is called the wattle, and is generally met by two small protuberances of the same luxuriant flesh, rising on each side of the under chap; this flesh is always most valued when of a blackish colour.

The circle round the black pupil of the eyes, is commonly of a red brick-dust colour, though they are more esteemed when of a fiery red; these are also encompassed with the same sort of naked fungous matter, which is very thin, generally of the breadth of a shilling, and the broader this spreads, the greater is the value set upon them; but, when this luxuriant flesh round the eye is thick and broad, it denotes the carrier to be a good breeder, and one that will rear very fine young ones. The gentlemen of the fancy are unanimous in their opinion, in giving the bird the title of "the king of the pigeons," on account of its graceful appearance and uncommon sagacity.

Extraordinary attention was formerly paid to the training

training of these pigeons, in order to be sent from governors in a besieged city to generals that were coming to succour it; or from princes to their subjects with the news of some important transaction. In this country these aërial messengers have been made use of for a very singular purpose, being let loose at places of execution, at the moment the fatal cart was drawn away, to notify to distant friends the exit of the unhappy criminal; like as, when some hero was to be interred, it was a custom among the ancient *Romans* to let fly an eagle from the funeral pile, to make his apotheosis complete.

In order to train a pigeon for this purpose, take a strong, full-fledged, young, carrier, and convey it in a basket or bag about half a mile from home, and there turn it loose; having repeated this two or three times, then take it two, four, eight, ten, or twenty miles, and so on till they will return from the remote parts of the kingdom. For, if they are not practised when young, the best of them will fly but insecurely, and stand a chance of being lost: be careful that the pigeon, intended to be sent with the letter, is kept in the dark, and without food, for about eight hours before it is let loose, when it will immediately rise, and, turning round, as is their custom, will continue on the wing till it has reached its home.

The Horseman.—This bird is in shape and make very like the carrier, only less in all its properties; its body smaller, its neck shorter; neither is there so much luxuriant encrusted flesh upon the beak and round the eye, so that the distance between the wattle and the eye is much more conspicuous in this pigeon than in the carrier. They are also more subject to be barrel-headed and pinch-eyed. This species of the pigeon is decorated with a variety of colours; but the most distinguished, are the blue and blue-pieds, which generally prove the best breeders. These pigeons, especially when young, should be regularly flown twice a-day, and, as they gain strength, should be let loose and put on the wing without any other in company, and they will fly four or five miles distance, in a few minutes, sweeping over a very large circuit. This is what the fanciers term going an end: this method is of essential service to them, especially when they are in training for the homing use. These are the sort of pigeons chiefly made use of in this country, for the deciding of bets, or the conveying of letters. The true genuine carriers are at this time very scarce, and of too great a value to be flown, except upon great emergencies. There is another species called the

Dragon.—It is bred between a tumbler and a horseman, and the ablest fanciers are unanimous in their opinions, as to its being of a bastard-strain, and that, by frequently matching their breed to the horseman, they will acquire great strength and agility. This pigeon is an excellent breeder, and makes a very tender nurse; for which purpose they are frequently kept as feeders for rearing of young powters, Leghorn-runts, and some other pigeons, who either breed so fast that they cannot conveniently give their young ones due attendance, or are destitute of that natural fondness, which is the characteristic of this bird.

The Tumbler.—These pigeons by their flight afford great satisfaction, for besides the pleasure they give by their tumbling they will frequently rise to such an amazing height in the air as to be almost imperceptible to the keenest eye; and there is one peculiar property belonging to them, that is, they will not ramble far, like the horseman, but if good birds, and familiarized to each other, will keep such close company, that a flight of a dozen may be covered with a handkerchief. At this height, especially if the weather be warm and clear, they will continue upon the wing for four or five hours at a stretch; it is reported that some well-bred pigeons of this sort have flown for nine hours successively, when they have been up at their highest pitch; the favourite sort seldom or never tumble but when they are beginning to rise, or when they are coming down to pitch.

The Almond Tumbler.—It is a very beautiful and valuable species, and derived its origin from the common tumblers, (which it so resembles in shape and make, as to render any description unnecessary,) by being judiciously matched so as to sort the feathers, to wit, yellows, duns, whites, blacks, black-grizzled, black-splashed, *&c.*

The Leghorn Runt.—This is a noble, large, full-bodied, pigeon; it is close feathered, short in the back, very broad-chested, and frequently measures seven inches and a quarter in the length of its legs; when it walks, it carries its tail raised up in the nature of a duck's, but hangs it down when it plays. It is goose-headed, and hollow-eyed, with a longer neck than any other pigeon, which it carries bending after the manner of a goose; the eye is encircled with a thin skin broader than that of the Dutch tumbler; the beak is very short, with a small wattle over the nostril, and the upper chap projects a little over the under.

The Spanish Runt—Is a short, thick-legged, flabby-fleshed, loose-feathered, bird, with a remarkably long body; some of them measuring twenty-three inches in length from the apex of the beak to the extreme end of the tail; and it does not carry itself so upright as the Leghorn-runt. The feathers of this are so uncertain, and of such a variety of colours, that a judgment cannot be formed of the sort by the colour, though some of the best are reported to be of a blood-red or mottled colour.

The Runt of Friesland.—This bird is somewhat larger than a middle-sized runt; its feathers are all inverted, and stand the wrong way; if this pigeon has its fanciers, it must be because it is uncommon and disgustful, for the bird really makes a frightful appearance; they are at present very scarce in this country.

The Trumpeter.—This pigeon is nearly as big as a middle-sized runt, and very like it in shape and make; its legs and feet are covered with feathers; the crown of its head is very round, like that of the finnikin and nun, only it is larger, and, the larger the head is, the more it is esteemed, as being usually more melodious; it is in general pearl-eyed, and black mottled as to its feathers; but the surest mark to distinguish a good trumpeter is the tuft of feathers which sprout from the root of the beak, and, the larger this tuft grows, the greater

greater is the value set upon the bird. The more salacious it is, the more it will trumpet; it derives its name from its imitating the sound of a trumpet after playing, which it always does in the spring of the year.

This bird and the ensuing species of pigeons, are by the fancy denominated toys.

The Spot.—It has its name from a spot above its beak, upon the top of its head: the tail-feathers are for the most part of the same colour with the spot, but the body is generally all white.

The Laugher.—This bird in shape and make very much resembles a middle-sized runt; its plumage is generally red-mottled, but sometimes it is blue, and it has a very bright clear pearl-eye, inclining to white.

The Nun.—Its head is almost covered with a veil of feathers, which gives it the name of the nun. Its body is chiefly all white; its head, tail, and the six flight-feathers of its wings, should be entirely red, yellow or black: that is, when its head is red its flight and tail should be red also; and, when its head is yellow, its flight and tail should be yellow; and, when its head is black, its flight and tail should also be of the same colour.

The Hermit—Is sometimes larger than the nun; the head, tail, and flight-feathers of the wings, for the most part, preserve an uniformity of colour, either yellow, red, blue, or black; but all the rest of its body is generally white; so that the most material difference between it and the nun is, the former has no hood on the back part of the head, and is frequently gravel-eyed.

The Jacobine—Is usually called, for shortness, the jack; it has a range of inverted feathers on the back part of its head, which turns towards the neck, like the cap or cowl of a monk, from whence this bird derives its name of jacobine, or capper, as some call it; the religious of that order wearing cowls or caps, joined to their garments, for the covering their heads.

The Ruff.—The ruff has a longer beak, and larger head; it is also rather a larger pigeon than the last; the irides of its eyes are in some of a gravel, in others of a pearl, colour; the chain does not flow so near to the shoulders of its wings, though both the hood and chain are longer, but are nothing near so compact as the others, and are easily disturbed with every puff of wind; they likewise fall more backward off the head, in a rumpled discomposed form, and from this the pigeon receives its name.

The Turbit.—It is a small pigeon, very little bigger than a jacobine: it has a round button head, and the shorter the beak is, the better; it has a tuft of feathers growing from the breast, which opens and spreads both ways, sprouting out like the chitterlin of a shirt; this is called the purle; it has also a gullet which reaches from the back to the purle; this bird is admired according to the largeness of its purle.

The Owl—Is rather less than a jacobine,, with a gravel-eye, and a very short hooked beak, much resembling that of an owl, and from this the bird derives its name. The purle in this bird is rather larger, and opens and expands itself more like a rose than that of the turbit's; but in every other respect, both in shape, make, and plumage, this bird is so very like the turbit, the beak excepted, as to render any further description needless.

The Capuchin.—A pigeon which has its name from an order of bareheaded monasticks; it has a longer beak than the jack, and is somewhat larger in its body; it has no chain, but a very pretty hood, and is in plumage and other properties the same as the jack. Some fanciers positively affirm it to be a distinct species; others again as confidently affirm it to be a bastard-breed, between a jacobine and some other pigeon; however it is beyond a doubt, that a jack and another pigeon will breed a bird so exactly similar to it, as will greatly embarrass the fanciers of this first persuasion to distinguish between it and what they term their separate species. Though all the pigeons of the toy kind have their respective admirers, the capuchin is but lightly esteemed by the fancy in general.

The Finnikin.—In make, shape, and size, it differs very little from the common runt; the crown of its head is formed very like the head of a snake; it has a gravel-eye, with a tuft of feathers growing on the back part of its crown, which falls down its neck, hanging like a horse's mane; it has a clean leg and foot, and its plumage is always blue or black pied.

The Turner—Is in so many respects like the finnikin, that little more remains to be said about it, than to point out the difference between them; it is not snake-headed, and the tuft on the back part of the crown is wanting; and, when the wanton fit is on it, and it plays to the female, it turns only one way, whereas the finnikin turns both.

The Broad Tail Shaker.—This pigeon, especially when lustful, has a frequent tremulous motion, or shaking in the neck; which, joined to the breadth of its tail when spread, gives the bird the name of the broad-tail shaker.

It has a beautiful long taper neck, which it erects in a serpentine form, rather leaning towards its back, somewhat like that of the swan. Its beak is very short; it is exceedingly full breasted, and has a tail that is composed of a great number of feathers, very seldom less than four and twenty, but never exceeds six and thirty, which it spreads in a very striking manner, like the tail of a turkey-cock, and raises it up to such a degree, that the tail appears joined to the head.

The Narrow Tail Shaker.—It is a bastard strain between the broad tail shaker and some other pigeon; it has a longer back and shorter neck than that of the last-mentioned bird: it has also a less number of feathers in its tail, which it does not spread like the other, but lets them fall, as it were, double, the one side folding over the other, in the nature of a fan when three parts opened, and is apt to let it droop very much.

The Barb.—This bird is rather larger than the jacobine; it has a short thick beak, like a bull-finch, encrusted with a small wattle, and a naked circle of a thick spongy red skin round its eyes, like that of the carrier; when the feathers of the pinion are inclinable to a dark colour, the irides are red, as is observable in some others of the pigeon tribe.

The Mahomet—Differs from the barb in nothing but the

the colour, which is of a fine white. In other respects it bears a strong resemblance.

The Lace Pigeon.—It is about the size of the common runt, and not unlike it in shape, but the colour of its plumage is white.

The Frill-Back.—It is less than the common runt, though very much like it in shape. The plumage of this bird is also white.

The Smiter.—This pigeon, in shape, make, and diversity of plumage, nearly resembles the tumbler, the size excepted, it being a much larger bird.

The Chinese Pigeon.—This bird in size is rather less than the common swallow; the sides of the head are yellow, but the top and the space round the eye are of an ash colour; it has a blueish ash-coloured beak, and the irides of its eyes are of a fine white.

Directions for erecting a Pigeon-Loft.

Let it be a principal maxim to place the front facing the south or south-west. as being the warmest quarters; but, as a room is seldom built for that purpose solely, it may be proper to observe, that any place, where there is room enough. may be made to answer the purpose. Some break a hole through the roof of the house, and there lay a platform of the size they think proper; but, in doing this, particular care must be taken to erect proper fences to keep them secure from the cats. Nevertheless, it is essentially necessary to train up a cat on purpose to be kept in the loft; therefore procure a kitten, and as it increases in growth, and begins to notice the pigeons, heat an egg and put it to its nose, and get a dead pigeon with which beat the cat soundly; repeat this two or three times, and the sight of an egg or dead pigeon will so intimidate the cat, that it will neither touch the pigeons nor eggs, especially if it is well supplied with food: a cat thus broke-in will be found exceedingly useful in a loft, and will keep it clear of rats and mice, which are very destructive to the pigeons and their eggs. Be careful not to overstock the loft, and always allow at least two holes or breeding-places for every pair: for, if they are cramped for want of room, they will not sit quiet, nor breed so well as when they have a sufficiency of room allowed them. We cannot better illustrate this remark than in the information given by Mr. MOORE, who relates, that he was well acquainted with a gentleman, who out of nine pair of breeding-pigeons could not raise three young ones, during the course of a whole spring and summer, only by keeping them crowded in too small a loft; but, in the beginning of *September*, he removed the same pigeons into a larger loft, and they bred well even then and through the greatest part of the ensuing winter, which is an indisputable proof of the bad effects of crowding too many in too contracted a habitation. The reason is obvious, salacious cocks will be often playing to, and fretting, the others as they sit, and others that want room to sit will fight for nests, and by this means both eggs and young ones are destroyed.

In erecting the breeding places, let the shelves be at least fourteen inches in breadth, and the distance between shelf and shelf twenty inches, that tall powters may not be compelled to crouch for want of height, and spoil their carriage by getting an ill habit of playing low; let partitions be fixed upon these shelves, leaving the space of three feet between each partition, having a board nailed against the front, which serves as a blind on both sides of every partition; and by this method there will be two nests in the length of every three feet, and the pigeon will sit dark and private. Some place a partition in the middle of each nest, which is of service in hindering the young ones from running to the hen, and cooling her eggs, when she sits at the other side; for in breeding-time, when the young ones are about three weeks old, the hen will lay again, if a good breeder, and leave the young ones to the care of the cock. For the easier cleaning out the nests, some have them built without any blind, being entirely left open in front; but, as the pigeon does not like to be disturbed when sitting, and an open fronted nest is liable to some other inconveniences, we can say nothing in favour of it. Others again, if the loft will admit of it, strenuously recommend the making of the nests on the floor, especially for the better sort of pigeons, as being far more convenient than either of the former two, in preventing those accidents which sometimes happen to the young pigeons, by their falling out of their nest, and thereby bruising or laming themselves, and also giving them an opportunity of being fed by other pigeons, as well as their parents, which is sometimes the case.

Let every nest be furnished with an unglazed earthen pan, or straw basket, both of which are made and adapted for this use, and the size should be in proportion to the pigeon it is intended for; a pan proper for a tumbler, or any other small pigeon, ought to be three inches high, and about eight inches over at the top, sloping like a wash-hand bason towards the bottom; and these should be varied in proportion to the size of the pigeons; in fixing the pan or basket in the breeding-place, put a small wedge of wood, or a brick, against the front of it, that the pigeons may get on and off the nest, without treading on the edges of the pan or basket, and by that means tilt out the eggs; when the hen has hatched, be careful not to handle the young ones when you want to look at them, for the handling of young pigeons often brings a scouring upon them. The basket is preferred by some, as being much the warmest, and not so subject to crack the egg when fresh laid; but the advocates for the pan say, that these difficulties are easily obviated, by a proper supply of clean straw, or frail, made soft and short; the frail as it lies hollow, and lasts a great while, is preferable to the straw; for, when the young ones are able to get out of their nest, take hold of the ends of the frail, and shake off the dung and filth, and the frail will be fit for use again. It is not improper in this place to inform the reader, that gravel should be sifted on the shelves and floor, which the pigeons are fond of picking, and it is very wholesome for them, and also gives the loft a more creditable appearance, and makes it much easier to be cleaned; besides, in keeping the pigeons clean they are cleared from fleas and other vermin, which are the constant attendants of nastiness and filth,

filth, being principally bred and nourished by the dung.

As for the trap or airy, it is always built on a platform or floor of deals, on the outside of the house, and is the common passage for the going out and coming in of the pigeons: it is made of laths, which should be nailed so close together as not to permit a mouse to creep through. Some of these are made very small, with a door in the middle, and one on each side: which three doors are so contrived, that by the pull of a single string, like a piece of machinery, all draw up together: this contrivance is chiefly designed to trap stray pigeons, who are allured into it by the tempting baits of hemp-seed, or rape and canary, which is strewed there for that purpose, and frequently has its desired effect. Some make two small swinging doors, on each side of the trap, fixed by wires, called bolting wires, so that any pigeon may get into the trap, but cannot return back again; and also leave a square hole open at top, called a tipping hole, which is made to answer the same purpose as the swinging doors; but, unless the trap is so situated as to be quite secure from the cats or rats, both these are dangerous contrivances: for either of the last mentioned animals may, by some means, as easily enter the trap as the pigeons can, and, if they once find their way in, they will make sad devastation amongst the pigeons and their eggs. Some of these places are built so wide and lofty, as to admit eight or ten people at a time to stand or walk about in them, and have two or three rows of shelves on every side for the pigeons to rest upon, and are designed to give room and air to those pigeons that are not suffered to fly abroad. When these places are so large they are called airies, and are of great service in keeping confined pigeons in a good state of health.

In order to complete the furniture of the loft, it must be provided with proper bottles and stands for water, and also with proper meat-boxes. It should be a large egg-bellied glass-bottle, with a long neck, big enough to contain three or four gallons of water, though the shape of it is immaterial, for a piece of paste board hung by a string about three inches above the bottle will always hinder them settling on it and dunging it. This bottle should be set upon a three-legged stool or stand, having a hollow at the top for the belly to rest in, that the mouth may descend into a small pan underneath, by which means the water will run from the mouth of the bottle, supplying the pan with water as fast as the pigeons drink it out; this method will keep the water fresh and sweet, and the water will stop running when its surface meets the mouth of the bottle; the reason of which is obvious, though an explanation would be rather too philosophical: but we advise those who are not yet possessed of this contrivance, to make a trial of it, and it will experimentally prove the truth of this assertion.

The box for the meat should be made in the shape of a hopper; and, in order to hinder them from dunging the grain, it must have a cover over the top, and then it will serve as a preservative for their food: from hence the meat descends into a shallow square box, and this is usually fenced in with rails or small holes on each side, to prevent them from flirting the grain amongst their own dung which lies about the floor. Some leave it quite open for the benefit of the young pigeons, that they may the more easily find their way to it.

Observations on the Diet proper for Pigeons.

The common dove-house pigeon, being removed as it were but one step from a state of nature, is hardy, and will seek its own food, living upon almost any grain; yet it is far different from the fancy-birds, who require some attendance, being much more delicate, and always used to tender treatment: therefore, as some observations on their food is necessary, I shall submit the following.

The pigeon may be fed with various sorts of grain, as wheat, barley, oats, peas, horsebeans, vetches, tares, rape and canary, or hemp-seed. But of all grains old tares prove to be the best suited to the nature of these birds; for new tares should be given very sparingly, especially to young pigeons, as they are very liable to put them into a scouring, though old tares will have the same effect, if by any accident they have been mixed with salt, or damaged by sea-water; for, though pigeons are very fond of salt, too much is pernicious.

Horsebeans are esteemed the next best food to tares, but the smaller these are the better: there is a *French* sort called small ticks, which make good food; but I would advise those who feed their pigeons with beans, sometimes to mix a few vetches with them, and to have all the beans split.

Wheat, barley, oats, and peas, ought only to be given now and then for a change of diet, as they are very subject to scour them. There is a mixed diet made of tares, beans, and peas, which is called *Scotch* meat, with which some fanciers feed their pigeons for cheapness, but care should be taken that the beans are not too large. Rape and canary, and hemp-seed, is a diet that pigeons are immoderately fond of; but this, for many substantial reasons, must not by any means be made a constant diet.

Diseases incident to Pigeons; with their Method of Cure.

In treating of the diseases relating to pigeons, we shall chiefly follow the sentiments of the late Mr. MOORE, who was not only a very judicious fancier, but also a gentleman of the faculty, who spared no pains to make himself acquainted with the diseases of these birds, and to apply the best method of cure; therefore, without farther apology, I shall take him for my guide.

Corruption of the Egg in the Uterus—This usually arises from the over salaciousness of an unmatched hen, and proceeds sometimes from high feeding. Such a hen will very frequently breed eggs without any connection with the male, though they seldom bring them to perfection, and sometimes they do not bring them forth, so that they decay in the womb. The only remedy

medy for this is a low diet, if you think the disorder arose from high feeding, and to match her to a cock in time.

The Wet Roop.—In this case give them three or four pepper-corns once in three or four days, and steep a handful of green rue in their water; and, as this is very wholesome, you may let all the other pigeons drink of it.

The Dry Roop—Is usually known by a dry husky cough, that always attends it, and is supposed to proceed from a cold, to which they are very subject, particularly during the time of moulting; to remedy this give them every day three or four cloves of garlic.

The Canker.—This usually takes its rise from the cocks pecking and fighting one another; though some fanciers say, that giving them water in a metal or tin vessel will bring on this disorder. In order to remove it, take burnt alum and honey, and rub the part affected every day: but, when this has not its desired effect, dissolve five grains of *Roman* vitriol in half a spoonful of wine vinegar, mix it with the former medicine, and anoint the part affected. Some people strip off the scurf, and make it bleed, before they apply the remedy; but we give it as our opinion that the medicine is searching enough without that.

When the flesh or wattles round the eyes of the carrier, horseman, or barb, are torn or pecked, bathe them with stale urine for several days; if this does not prove successful, dissolve two drachms of alum in one ounce and a half of water, and wash the aggrieved part: but, when the case is very obstinate, mix half an ounce of honey with twenty grains of red precipitate, and anoint the part, and it will certainly cure it.

Pigeons are infested with small insects, particularly during the summer-months, which the fanciers call lice; when this happens, fumigate their feathers well with the smoke of tobacco, and it will certainly destroy them.

There is another kind of small vermin, which are very pernicious, and frequently prove fatal to the young ones in the nest, especially when first hatched, by creeping into their ears, and hindering them from thriving; to prevent this, sprinkle the dust of tobacco in the nest, and also over the young pigeons, and it will kill these vermin; they are called the blacks by some, and by others pigeon-bugs.

Gizzard-fallen.—Gizzard-fallen is when the gizzard sinks down to the vent; the fancy in general think it proceeds from weakness, though we are of opinion that it is rather caused by feeding on too much hemp-seed. I know of no cure for this malady unless nature will co-operate with an alteration of diet, which in young pigeons it sometimes does.

Navel-fallen.—Navel-fallen is when there is a sort of bag hanging down near the vent. This distemper is frequently desperate; and, if the giving of them clary, or some other strengthening things of a similar nature, does not effect a cure, I can recommend nothing that will.

Pigeons are subject to be pap arsed, as it is termed by the fancy. This malady arises either from a natural weakness, or from a lecherous cock's mounting his hen too frequently. There is no cure for this, excepting flying, and the parting of them sometimes to make them more abstemious. Young pigeons and carriers that are not much flown are most liable to it.

Some pigeons, as powters and croppers, are apt to overcharge or gorge themselves, that is, when they have fasted rather longer than usual, they will eat such a quantity that they cannot digest it, but it will stay and corrupt in the crop. When this happens, put the gorged bird in a tight stocking, with its feet downwards, stroaking up the crop, that the over-loaded bag of meat, may not hang down: then hang up the stocking on a nail, keep it in this posture, only supplying it with a little water now and then, till the food is digested, and this will frequently cure it; but, when it is taken out of the stocking, put it in a coop or open basket, feeding it but very moderately, for if it is left to itself it will gorge again. When this method does not succeed, slit the crop from the bottom with a sharp pair of scissars or pen-knife, take out the corrupted meat, wash the crop, and sew it up again. This method has often proved successful, though the crop will lose its roundness. Some take off the crop by ligature, that is, tying that part of the crop that contains the undigested food tight round with a string, and let it remain till it drops off. This method never fails, but the shape of the crop is entirely ruined for ever after.

The Vertigo,—or, as it is commonly called by the fancy, the megrims, is a disease, in which the pigeon flutters about at random, with its head reverted in such a manner, that its beaks rests on its back. This malady is pronounced incurable by most fanciers; and, if it baffles the power of the following remedy, it is so: Infuse in half a pint of water one ounce and a half of spirit of lavender and a drachm of the spirit of sal ammoniac that has been distilled with quick lime; in the course of a day force down the bird's throat about a spoonful and a half of this composition; and, if the bird finds benefit, repeat the medicine every third or fourth day, only lessening the quantity, and in the intermediate days give it a clove of garlic, or three or four pepper-corns; if after a trial you perceive no amendment, it will be best to kill it out of the way.

When pigeons do not moult freely, or are at a stand in their moulting, so that they do not throw their feathers kindly, it is a never-failing sign of a bad state of health. To amend this, the following method will be of service: Put them in some warm place, and pull out their tail feathers; mix a good quantity of hemp-seed with their common food; also throw a little clary or saffron into their water, though some prefer cochineal or elder berries for this use. Pigeons are also liable to a scouring, particularly in moulting-time, which makes them very weak, faint, and thin: as a remedy for this, give them pump water with a lump of chalk in it, or force the quantity of two horse-beans down their throats every day. If this fails, pour some smith's forge-water down their throats, which is very binding. The grit that remains in the trough under a grind-stone, where they

To take Pigeons, Rooks, and Crows, upon new plowed or sown Grounds.

Take a good number of small twigs, of strong wheaten straw, of a good length, bird-lime them well, lay them on the ground where pigeons, *&c.* frequent, and they will soon be entangled with them; and in order to allure to your twigs or straws, you may tie two or three pigeons to the ground, among the twigs.

Cut some sheets of thick brown paper, each into about eight parts, making them up in the shape of a sugar-loaf, and lime the inside of them three or four days before you intend to use them; put into each paper, near the bottom, three or four grains of corn, and lay these papers up and down the ground, as much as you can under clods of earth, early in the morning, before the pigeons, *&c.* come to feed. The more papers you lay, the greater you may expect your sport. When the pigeons come to feed they will see the corn, and by thrusting in their heads to reach it, will get hood-winked by the paper sticking to their heads, which will occasion them to take wing, and fly bolt upright till they have spent themselves, when they will come tumbling down, and may be easily taken.

PIKE. A very long-lived fish, according to Lord BACON and GESNER, who say he outlives all other fish, which is a pity, as he is an absolute tyrant of the fresh water. The largest are the coarser food, and the smallest are always accounted best: this fish never swims in shoals, but rests by himself alone, being naturally very bold and daring, and will seize almost upon any thing, even devour his own kind: he breeds but once a year, and spawns in *February* or *March*. The best sort is found in rivers, the worst in meres and ponds. His common food is either pickerel-weeds or frogs, or what fish he can get.

The pike is observed to be a solitary, melancholy, and a bold fish; melancholy, because he always swims or rests himself alone, and never swims in shoals or with company, as roach and dace, and most other fish do; and bold, because he fears not a shadow, or to see, or to be seen of any body, as the trout and chub, and all other fish do.

And it is observed by GESNER, that the jaw-bones, and hearts and galls of pikes, are very medicinable for several diseases, or to stop blood, to abate fevers, to cure agues, to oppose or expel the infection of the plague, and to be many ways medicinable and useful for the good of mankind; but he observes, that the biting of a pike is venomous and hard to be cured.

PIKE-FISHING. There are two ways to take the pike, by the ledger and the walking-bait. The ledger-bait is fixed in one certain place, and may continue while the angler is absent; this must be a live bait, of fish or frog; of fish, the best is a dace, roach, or perch; of frogs, the yellowist is the best. In using the ledger-bait, if it be a fish, stick your hooks through his upper lip, and then fastening it to a strong line, at least twelve or fourteen yards long, tie the other end of the line, either to some stake in the ground, or to the bough of a tree near the pike's usual haunt; which done, wind your line on a forked stick, big enough to keep the bait from drawing it under water, all, except half a yard, or a little more; and your stick must have a small cleft at the end, into which fasten your line, but so that when the pike comes, he may easily draw it forth, and have line enough to go to his hold, and pouch the bait.

But if the bait be a frog, put the arming wire in at his mouth, and out at his gills, then with a fine needle and silk sew the upper part of his leg, with one stitch only, to your arming-wire, or tie his leg gently, above the upper joint, to the wire.

There is a way of trolling for pike, with a winch to wind it up; this fish being very strong, your rod must not be too slender at top, where should be placed a ring for your line to run through, which line is to be of silk, two yards and a quarter next the hook, it must be double, and strongly armed with wire about seven inches: fasten some smooth lead upon the shank of the hook, and having placed it in the mouth of your fish-bait, with your lead sink it with his head downwards, so move your bait up and down, and if you feel the fish at the hook, give him length enough to run away with the bait and pouch it, then strike him with a smart jerk. Observe in trolling, to put your arming-wire in at the mouth of the gudgeon, (the best bait) and thrusting it along by the back, bring it out again by the tail, and there fasten it with a thread, having your reel in your hand, and your line fixed to your hook through a ring at the top of your rod; then move your bait up and down in some likely place in the water, as you walk gently by the river-side. When you feel him bite, be sure to give him line enough, and not to strike him too quick or fiercely, lest you endanger your tackle, and lose your fish: if you fish at snap, give him leave to run a little, and then strike the contrary way to which he runs: but for this method of angling a spring-hook is best, and your tackle must be much more strong than for the troll.

If you fish with a dead bait for a pike, take minnows, yellow frogs, dace, or roach, and having dissolved gum of jey in oil of spike, anoint your bait therewith, casting it where pikes frequent; after it has lain a little while at the bottom, draw it to the top, and so up the stream, and you will quickly perceive a pike very eagerly following it. They bite best about three in the afternoon, in clear water, with a gentle gale, in the middle of summer to the latter end of autumn, and in winter, all day long; and in the latter end and beginning of the spring, he bites most eagerly early in the morning, and late in the evening. *See* HUXING, ANGLING, *&c.*

PILLAR. Most great manages have pillars fixed in the middle of the manage-ground, to point out the center; but all manages in general have, upon the side or circumference, other pillars placed two and two, at certain distances, from whence they are called the two pillars, to distinguish them from that of the center.

PINCHING, (in Horsemanship) is when a horse, standing still, the rider keeps him fast with the bridle-hand, and applies the spurs just to the hair of his sides.

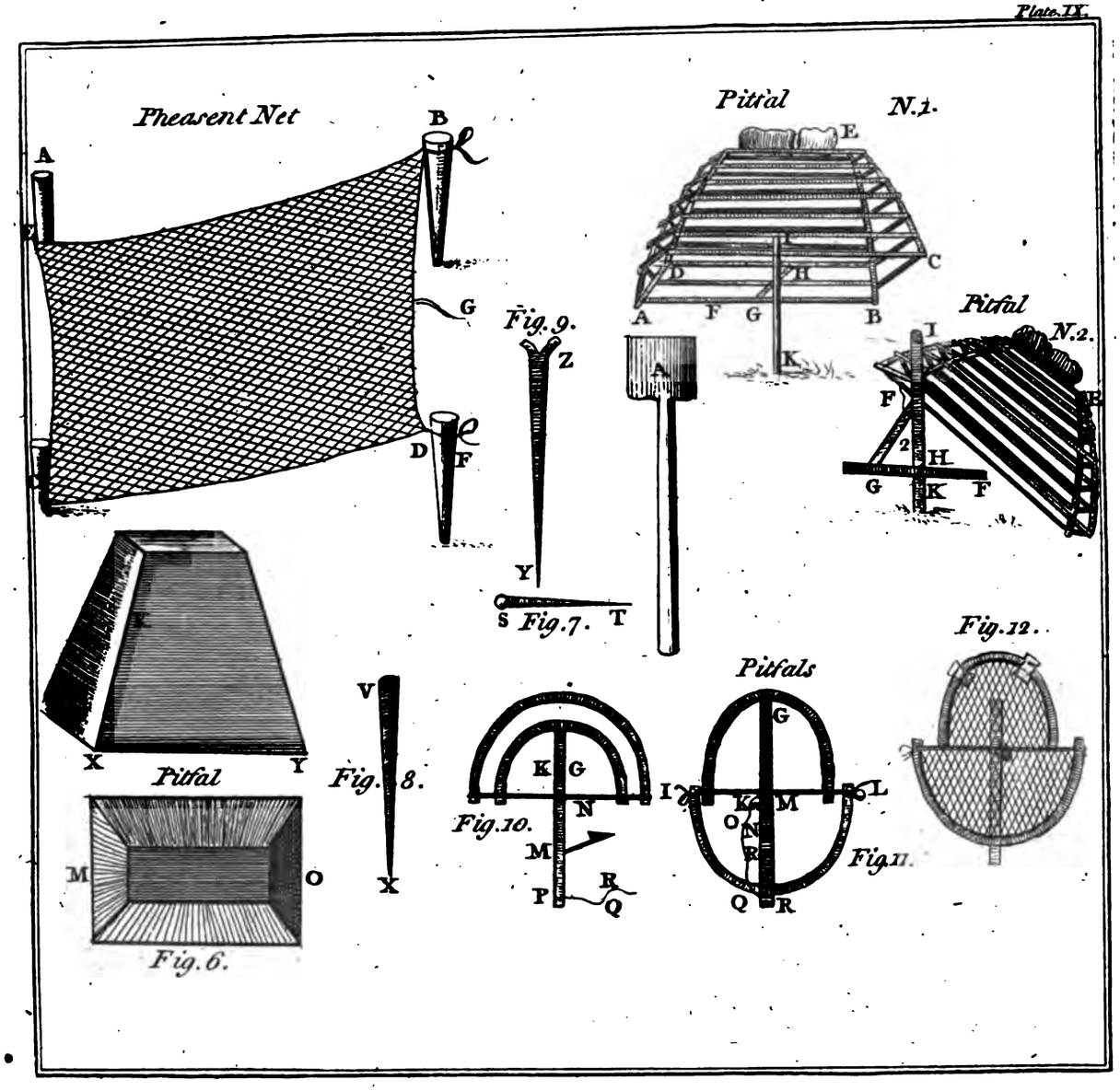
Pheasent Net
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Fig. 9.
Z
Y
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Fig. 7.
T
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Fig. 6.
V
Fig. 8.
X
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Fig. 10.
M
P
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Fig. 11.
Fig. 12.

PIP. A diſtemper incident to hawks; it proceeds from cold and moiſtneſs in the head, or by feeding on groſs meats in the ſummer-time, that have not been waſhed well in cold water.

For the cure: give the hawk with her caſting at night, a ſcouring pill of agaric, or hiera picra, for two or three days together, and waſh her tongue with roſe-water, and anoint it for three or four days with oil of ſweet almonds; and when the pip is thoroughly ripe, *i. e.* when it is white and ſoft, take it off with a ſharp awl or bodkin, and afterwards anoint the wound with oil of ſweet almonds.

If the hawk has the pip in her foot, then caſt her, and cut out the core or corn in the ball of it, and apply a plaiſter of galbanum, white pitch, and *Venice* turpentine, ſpread on ſoft leather, and tied on ſo faſt that it may not come off, but yet not ſo ſtraight as to hurt her; then let her ſtand on a perch ſoft lined, keep her warm, and dreſs her three or four times a week till ſhe is well.

PISMIRES, in houſe or garden, &c. to deſtroy: Take the flour of brimſtone, half a pound; ſalt of tartar, four ounces; ſet them in an iron or earthen pan over a fire, till they become red-hot; cool them in fair water, afterwards dry and beat them to a fine powder, and infuſe a little of this powder in water; and, wherever you ſprinkle it, the piſmire will die, or fly the place.

PISSING OF BLOOD, (in Horſes) may proceed from divers cauſes, ſometimes by being ridden over-hard, or laboured beyond his ſtrength, and by carrying too heavy burdens on his body; at other times it may be by ſome vein broken in his body, on which blood will frequently iſſue out of his body; or it may proceed from ſome ſtone fretting upon his kidnies, and from ſeveral other cauſes.

For the cure: take knot-graſs, ſhepherd's-purſe, bloodwort of the hedge, polypody of the wall, comfrey, and garden bloodwort, of each an handful, ſhred them ſmall, and boil them in a quart of beer, to which add a little ſalt-leaven and ſoot, and give the horſe.

PISTE, is the tread or tract, that a horſe makes upon the ground he goes over.

PIT-FALL. A cheap device, with which you may take a whole covey of partridges, as well as ſingle ones, or indeed any other birds; there are pit-falls above, and under ground: the machine repreſented by the cut, is a ſort of cage, and made as in Plate IX. No. 1.

This device is compoſed of four ſticks, or pieces of wood. A, B, A, D, D, C, C, B, each about three feet long, and bored through within two inches of the end, with a hole big enough to turn one's little finger in it; they muſt be placed on each other, in a ſquare on the ground, and let into each other about half the thickneſs of the ſtick, that they may hold together, in ſuch a manner as to make four angles; then take two tough hazle rods, each four or five feet long, which muſt be fixed in the fore-mentioned holes, croſſing them over each other, that their other ends may be fixed in their oppoſite angles, as the corner ſticks in cages uſed to be laid; then you muſt have ſome light ſtraight ſticks, longer than each other by degrees, and about the bigneſs of one's finger, which you muſt compile one over another, the longeſt firſt, and the ſhorteſt laſt, up to the height of the croſſing of the two rods, ſo that the whole will reſemble a kind of bee-hive; but you muſt remember to leave a hole at the top, to be covered or uncovered with ſome ſtone, or the like, to take out the birds when they are in the pit-fall.

You muſt at leaſt bind the end of your ſticks to the two rods with oſiers, ſtrong packthread, or ſmall cord, and this is all that belongs to the pit-fall; but for the erecting or piling it up, do thus: take a ſtick of about three feet long, and about the bigneſs of one's little finger, which muſt be ſmoothed above and below, then tie the end F, No. 2, with a little cord, to the middle of the foundation-ſtick A, B, the other end of the ſtick F, G, muſt have a ſmall notch in it about two inches from the end; then provide another ſtick I, K, about a foot and a half long, with a ſmall cord fixed at the upper end thereof, where you may place another little ſtick H, half a foot long, having the end G ſhaped like the ſharp end of a wedge; the lower end of the ſtick K muſt be fixed in the ground, which being done, the fore-part of the pit-fall D, C, will come to be lifted up, and then place the end H of the little ſtick under the cage to ſupport it, and the other end, ſhaped like a wedge, into the notch of the ſtick F, G; then let the pit-fall reſt gently on it, and it will be ready ſet, with one ſide lifted up about a foot high, and the ſtick F, G, will be about three inches from the ground; then ſtrew your bait under the cage.

The ſame pit-fall will ſerve to take ſmall birds, hares, rabbits, or vermin.

When you have found out that partridges frequent either vineyards, woods, or ſome other place, you muſt, before you ſpread your net, pitch upon a proper ſtand for yourſelf, either near a hedge, a knot of oſiers, or ſome buſhes, ſo that your pit-fall may not be openly ſeen, and frighten the partridges: when the place is fixed, take five or ſix handfuls of barley or oats, parched in a frying-pan, or elſe ſome wheat, ſtrew ſome grain here and there, and make a pretty long train, ſo as to lead the partridges to the heap; and when you know by their dung that they are come thither, then lay your pit-fall at the place where they have dunged, covering it with ſome leaved branches, or broom, or leaved vine branches, if the ſeaſon allows it, and lay down ſeven or eight handfuls of corn under it, with a long train; the partridges having been regaled there before, will not fail ſoon to get under the cage to eat, and being greedy will jump upon one another, ſo that coming to touch the little ſtick F, G, which keeps the machine extended, it will by that means fall upon them. When the covey is large, ſome often happen to be without the reach of the pit-fall, but he that is dexterous at this ſport will know how to catch them another time.

The two figures, No. 1 and 2, deſcribe the pit-fall two ways; the firſt ſhews how it is extended front-ways, and the other ſide-ways, and they are marked with the ſame letters; the letter E ſhews you, that when the pit-fall is light, and the covey large, that you

you muſt put a ſtone upon the top of the pit-fall, the weight of which prevents a ſingle partridge from letting down the cage or trap, for otherwiſe you may take but one or two: this artifice is well known to thoſe who follow the ſport.

Beſides this pit-fall, for the taking of partridges, there are others of the like nature with which they take ſmall birds; the former was above the earth, but theſe in, and under it, and are excellent for taking black-birds, thruſhes, fieldfares, and the like birds that feed upon worms. The beſt time for this ſport, is from the beginning of *November* to the end of *March;* the device is cheap, profitable, and pretty common; nevertheleſs, in order to omit nothing that may be uſeful in this work, the following figures will demonſtrate it to you, *viz.*

The figure marked A, is a plain paddle-ſtaff, ſuch as countrymen uſe to carry in their hands as they go about their grounds: with this you are to cut up turfs, with which the pit-fall is to be cloſed, which turf muſt at leaſt be cut two inches larger than the pit: the ſaid paddle may likewiſe ſerve to dig your pits, which ſhould always be made in the ſun, near ſome hedge where birds frequent: they may alſo be made in great woods, near holly-buſhes, for birds in hard weather reſort to ſuch places, in expectation of worms, by picking up and removing the dead leaves that lie on the ground: the holes may be about ſeven inches deep; on the oppoſite ſide let it be about four or five inches long, as deſigned Fig. VI. and from X to O, there may be a diſtance of about ſix inches; then take a ſmall ſtick X, being tapered, or cut ſmall by degrees, prick the ſmall end X, into the ſide marked M, and let the end V, lie upon the ground, ſee Fig. 8.; then have another ſtick marked at S, T, about the bigneſs of a ſwan's quill, and four inches long, which cut flat and ſmooth on one ſide, and cut a notch at the end S, on the other ſide. *See* Plate IX. Fig. 7.

In the next place you muſt have a forked ſtick, marked as Y, and Z, Fig. 9, ſomething bigger than the other ſticks, and about five or ſix inches long, the end Z, being cut like the end of a wedge. The next thing is to make uſe of your turfs, which muſt be four or five inches thick, the bigger ſide to be laid over the largeſt ſide of the pit.

Take the end S, of your little ſtick, and lay the flat ſide on the place M, upon the end of the ſtick which is pricked into the ground; then place the end Z, of your forked ſtick into the notch S, and lay on the turf, making the end of the forked ſtick marked Y, to be juſt under the place of the turf marked K. then move and place the ſmall ſtick which holds the fork, in ſuch manner that by the leaſt bird that comes to tread upon the end of the ſtick, the turf may fall down, and ſo catch the birds in the hole.

That you may induce the birds to come to your pit-falls, get ſome earth-worms, and ſtick four or five of them through the body with ſome long thorns, or ſmall ſticks for that purpoſe, and ſo ſet them in your pits to be ſeen by the birds that come near it; and take care that the birds cannot come to the pits any other way than that marked O; you may plant a little hedge-row of ſhort ſticks about the two ſides of the pit. If it be hard froſty weather, ſtir up ſome freſh earth about the front of the pit, which will much entice the birds to come.

There is another ſort of pit-fall which is not ſo troubleſome as the former, and not ſo many ſticks or devices required; you may uſe it in any hedge, buſh, tree, or the like, and in all weathers. It is to be made and uſed according to the following deſcription:

Take a holly-ſtick about the bigneſs of one's middle finger, and about a foot and a half long, alſo another ſtick of the ſame bigneſs, but about two inches ſhorter, bend them both like a bow, with a good double packthread, between which place a flat ſtick about eighteen inches long, as the letters P, M, K, G, Fig. 10, ſhew; then tie the end of the ſaid ſtick G, to the middle of the leſſer bow, to try if it be right, and with one hand hold the end P, of the flat ſtick, and with the other hand pull the leſſer bow towards you, and if you let it fly back it returns with a good force, it is a ſign it is well done.

Then tie upon your flat ſtick, about three inches from the end of it, at the letter P, a ſmall packthread, about nine inches long, and as big as a good quill, between the ſaid packthread at P, and the letter K; about the letter M tie the thread double, as N, O, then ſpread a ſmall net over two bows, and let the whole be like a folding-ſtool: the way to bend it is thus, lift up the greater of the bows, and bring it over the little ſtick Q, R, then paſs athwart the net the double thread N, O, with the bait faſtened therein at N, and open the end O, put it on the end of the ſtick R, and it is ready ſet.

For the better comprehending it, there are three figures deſcribed, (the letters are all the ſame) one ſhews how to make it, the other how to bend it or ſet it, and the laſt ſhews it ready bent. *See* Plate IX. Fig. 10, 11, and 12.

When you fix it in any place, ſtrew ſome leaves behind it, and alſo upon the bottom of it before, to the end the birds may not unbend it, except in the forepart: you muſt bait it according to the different ſeaſons and natures of thoſe birds you deſign to take; in *May* and *June*, for pies and jays, in gardens and orchards, either two or three cherries, or a piece or two of green pear or apple, may do well: in winter, for black-birds, thruſhes, or the like, two or three worms will do the buſineſs; at other times, and for ſome birds, an ear or two of wheat or barley is very good.

PIZZLE; for the hardneſs or ſwelling of a bull or ox's that is bruiſed by riding. Remedy:

For the ſwelling of a bull or ox's pizzle, you muſt take hollyoak, houſeleek, and a little plantain, and ſtamp them together with freſh butter, and anoint it twice a-day; and if it be ſore, you muſt caſt him, and waſh his ſheath and pizzle with white wine vinegar very well, but, if there be any cancer or holes in the yard, then you muſt put ſome burnt alum to the vinegar, and waſh it very well, and he will mend in thrice dreſſing without fail.

PLAGUE, IN SHEEP. *See* ROT.

PLAGUE, or any diſeaſe in the MELT of SWINE. Cure: Bruiſe long pepper, coriander-ſeed, and ginger, half

half an ounce of each; boil them in milk with an ounce of chamomile flowers, and give it hot at three times at three hours diſtance.

PLANET-STRUCK, OR SHREW-RUNNING, as it is called by ſome, is a diſtemper in horſes, being a deprivation of feeling or motion, not ſtirring any of the members, but that they remain in the ſame form as when the beaſt was firſt ſeized with it.

It proceeds ſometimes from choler and phlegm, ſuperabundantly mixed together; ſometimes from melancholy blood, being a cold and dry humour which affects the hinder part of the brain; ſometimes from extreme heat and cold, or raw digeſtion, ſtriking into the veins ſuddenly; or laſtly, from extreme hunger, occaſioned by long faſting.

If it be cold, then it is diſcerned ſome time before by his ſnuffling and rattling in the head, which denotes that cold phlegmatic humours do aſſault the brain; and, if from heat, then it may be perceived by the dryneſs of the tongue, the ſcorching of the breath, clear breathing, and the like; then is the malady in the blood, compoſed of crudities and groſs humours. For the firſt, anoint his temples with the oil of petroleum, and give him an ounce of laſerpitium, in a pint of canary and half a pint of olive-oil, as warm as may be: and, for the latter, having blooded your horſe, give him water and honey, with an ounce of laſerpitium and two ounces of melon-ſeed bruiſed to powder, and let his diet be moderate, eſpecially if his body abound with groſs humours, that by a ſpare diet they may waſte and conſume: though ſometimes indeed by extreme faſting this diſtemper happens, and then by good feeding, though by degrees, is the remedy.

PLANTED, with Farriers] a term uſed of a horſe, who is ſaid to be right planted on his limbs, when he ſtands equally firm on his legs, and not one advanced before the other; his legs ſhould be wider above than below, that is, the diſtance between his feet ſhould be leſs than between his fore-thighs, at that part next to the ſhoulders; the knees ought not to be too cloſe, but the whole leg ſhould deſcend in a ſtraight line, to the very paſtern-joint, and the feet ſhould be turned neither out nor in, the paſtern being placed about two fingers breadth more backwards than the coronet.

As for the hind hand, his jarrets or hams ſhould not be too cloſe, and the inſtep, which is betwixt the hook and the paſtern-joint, ſhould ſtand perpendicular to the ground.

PLANTED-COAT. *See* STARING HAIR.

PLATE-LONGE, is a woven trap, four fathom long, as broad as three fingers, and as thick as one, made uſe of in the manage for raiſing the horſe's legs, and ſometimes for taking him down, in order to facilitate ſeveral operations of the farrier.

PLAT-VEIN IN A HORSE, is a vein on the inſide of each fore-thigh, a little below the elbow, ſo called among common farriers; ſome call it the baſilic vein.

The bleeding of this vein may be ſtopped when cut, by filling the orifice with the wool of rabbit, or hare, and afterwards ſewing up the ſkin in two parts; upon which a little matter will gather together, but by greaſing the wound it will be healed in eight or nine days.

PLOVER, a travelling bird, about the bigneſs of a pigeon; it has yellow, white, and dark red feathers; his bill is black, ſhort, ſharp pointed, and a little crooked at the end. There is alſo another ſort of plover which is ſomething bigger, and from its aſh-colour, called the grey plover, marked with cheſnut-coloured ſpots; his bill is alſo whiter and longer. It is good food, eſpecially for thoſe that are troubled with the falling ſickneſs, and a retention of urine. The fleſh of it has the virtue to purify the blood.

Plovers uſually fly in exceeding great flocks together; that they have been ſeen to the number of thirty thouſand of them in one day. They generally come to us about *September*, and leave us in or about *March*; in cold and froſty weather they go in queſt of their food on ſuch lands as lie near and adjoining to the ſea; in thaws and open ſeaſons they go higher up in the country, ſo that their whole labour is to riſe and fall. They delight much to feed in ploughed lands, eſpecially if ſowed, and having fed, they preſently ſeek out for water to waſh their beaks and feet that are full of dirt. When they ſleep they do not perch upon any thing, but couch or ſit on the ground like ducks or geeſe, far from trees and hedges when the wind does not blow. They ſleep, indeed, only in calm weather, otherwiſe they paſs moſt of the night in running up and down to ſeek for worms as they creep out of the ground, and then they always make a little cry, on purpoſe to keep cloſe together, for at day-break they will all unite into one body, and ſo depart; if in their flight they chance to ſpy any others on the ground, they uſually call them to them, and if they refuſe to go, they make a ſtay, expecting ſome booty. There are many other fowls that accompany them, as lap-wings, teal, and the like.

They are eaſier taken when not intermixt with other fowl, eſpecially in *October*, ſoon after their coming, as being unacquainted with the inſtruments of their deſtruction: they are alſo eaſily taken in the month of *March*, for then they begin to couple. It is not adviſeable to ſet your nets for them in long froſts, and continued cold ſeaſons, but varied with the weather; of all winds, the north-weſt is the worſt to take them; and as you ought not to ſet your nets in ſome winds, ſo you ought exactly to place your nets according to the wind, of which more will be ſaid by and by. All ſea-fowl fly againſt the wind whenever they deſign to reſt on land, and therefore obſerve to fix your nets accordingly, to play with the wind.

There are many little neceſſary things to be uſed in the taking of plovers: you muſt have two poles or ſtaves, marked 1 and 2, in plate X, about as thick as your arm, and of a different length, one of which muſt be nine feet three inches long, and the other nine feet; let both of them be a little notched at the ſmalleſt end.

Then you muſt have two pieces of ſome pipe-ſtave, as marked 3, a foot long, and three inches broad, and pointed at one end; in the next place you muſt have a couple

couple of ſtaves about the bigneſs of one's thumb, ten or twelve inches long, and pointed at one end, as that marked 4; get three other pieces of wood, marked W-5, each two feet in length, and about the bigneſs of a pitch fork, ſharpened at the end: then you muſt provide yourſelf with a ſmall hatchet, marked 6, the ſharp ſide not above three inches deep, with a ſtrong head to beat in the ſtaves: you muſt have a bill, or large knife, marked 7; alſo a ſtick in the faſhion of a billiard-ſtick, as repreſented by W-8, which muſt be two feet long, from the letter A, to B, ending in a point at A; the other end B, C, muſt be a foot long, bending, and it muſt be cut in three angles at the letter C.

In the ſecond cut is deſcribed a pipe or whiſtle, No. 1. wherewith you may call the plovers; it may be made of the thigh-bone of a goat, or a large ſheep, and cut off at both ends about three inches long; fill it at the end H, with wax, at the opening E, then make the hole F, plain under the bone, that the wind may come; next make a hole at the middle F, juſt above big enough to receive a ſmall gooſe quill, and another a pretty deal bigger, towards the end G, to give in the clearer ſound; and likewiſe pierce a ſmall hole at H, to receive a packthread, that you may hereby hang it about your neck.

Then provide a ſmall pannier, or baſket, as in the figure W-2, ſomewhat in the form of an egg, which muſt be big enough to hold three or four live lapwings with a hole in the top to put them in, with ſomething to ſhut it, and a cord to carry it.

Be provided with three ſmall reels, as repreſented by the third figure, which ſerve to wind your lines upon: they conſiſt of two pieces of wood, I, K, L, M, half an inch broad, and ſix inches long, which muſt be bored nearer the ends, in order to fit the two ſtaves I, L, K, M, which muſt be ſmaller than one's finger: you muſt pierce the two flat pieces of wood in the middle P, O, into which put two other pieces which may eaſily turn, as you may ſee in plate X, No. 3.

You muſt have a commodious ſack, or wallet to carry your things in, as the birds you have taken and killed, the packthreads, and other neceſſary utenſils; it is made according to the deſcription in plate X, No. 10, of three pieces of ſquare wood, B, F, C, D, A, E, two feet long, and an inch and half thick; they muſt have three ſeveral holes bored an inch big; take three or four thick ſtaves, three feet long, and bent like a bow, which thruſt into the holes in the middle marked I, half in, then fix one of the ends in the hole K, and the other in the hole L, which faſten with ſmall wooden wedges; you muſt paſs the other two above and below in the ſame manner, and place three ſticks more, T, H, V, eighteen inches long, between the two pieces B, F, and A, L, which ſhould enter into the holes made on purpoſe to keep the reſt in order: you muſt tie two girths, leather ſtraps, or cords to the ſtaff L, I, in the middle, and the other two ends ſhould be furniſhed with the ſhoe-buckles F, and D; or elſe tie a cord, two feet long, to the letter D, by one end, and the other end faſten at C; and when all this is done, cover it with ſome coarſe linen cloth, or canvas, as you ſee is repreſented in the cut, and leave a piece of the cloth above, as A, B, C, which muſt be ſewed about a wooden bow: it will ſerve for a lid or cover.

Some make uſe of another ſort of pipe, repreſented in the next cut, 4, being nothing but a piece of wood, leſſer than one's little finger, and three inches long, cleft at the end, unto the middle T, wherein fix a bay-leaf, to imitate the cry of lapwings.

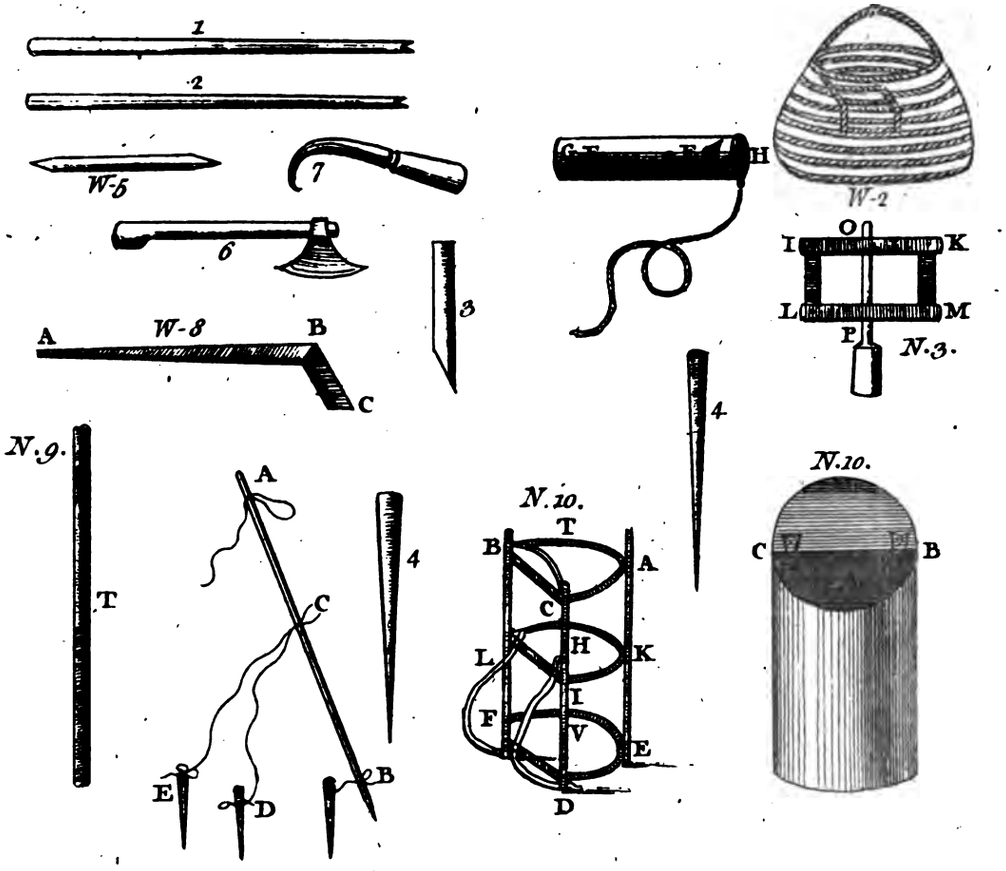
Beſides this, you muſt have two rods as in the ſecond figure, each five feet and an half long, and ſtraight, light, and ſlender, having at the bigger end B, a peg faſtened, three or four inches long, with a packthread, and pretty cloſe to the rod; at the middle C, that is, nearer the great end, tie a couple of packthreads, each two feet long, with a peg at each end D, and E, of the ſame ſize with the former at B; at the ſmall end of the rod A, faſten another ſlender packthread, with a double at the end, to clap about the body of a lapwing, and the other end, which is ſingle, muſt be a good deal longer, to faſten the tail of the bird.

Take an holm-ſtick, about four or five feet long, indifferent ſtrong, at the great end of which faſten two pegs, B, C, at each ſide; about the bigneſs of one's little finger, and ſix inches long; about a foot and a half from thence faſten two packthreads, each two feet and a half long, with a peg at each end F, and G, about the ſame ſize with the former. Theſe are the main implements to be uſed; now we come to treat of their uſe.

After having provided yourſelf, beſides theſe implements, with a net or two, which are known by the name of leap-nets, whoſe meſhes are lozenge wiſe, and two inches broad, and whoſe length ſhould be about two fathoms, and eighteen inches deep; the beſt place to pitch them for plovers and ſuch like fowl, is in large common fields of green corn, where there are neither trees or hedges, at leaſt within three or four hundred paces of the place where you deſign to go to work: if there be any water in the place, endeavour to pitch near it; for plovers, as before hinted, delight to waſh their beaks and feet after they have dirted themſelves with turning the earth up and down for ſeeds and worms: you muſt take care that the plat where you pitch be a little lower than your lodge, or at leaſt equal with it, for it muſt not be higher. *See* Plate XI. Fig. 6.

Now ſuppoſe the plate repreſents the form of the meadow or field, and that the place where you deſign to pitch, reaches from A, to B, that the diſtance between B, and E, be the ſpace between the plat-form and your lodge, and that the wind blows ſouth; you muſt have a packthread about fourteen or fifteen feet long, and faſten it to a couple of pegs, A, B; the pricked line A, B, is done on purpoſe to repreſent this packthread, which faſten in the ground, to line out the place for your net; then take the billiard ſtick, A 8, B, C, deſigned in one of the preceding figures, and beat the earth with the triangular end, as if you would cut it, and ſo paſs along the whole length of the packthread, which is about twelve or fourteen fathom, the exact length of the net: when your border is made, then take away the packthread, and take the ſhorter of the

Plovers.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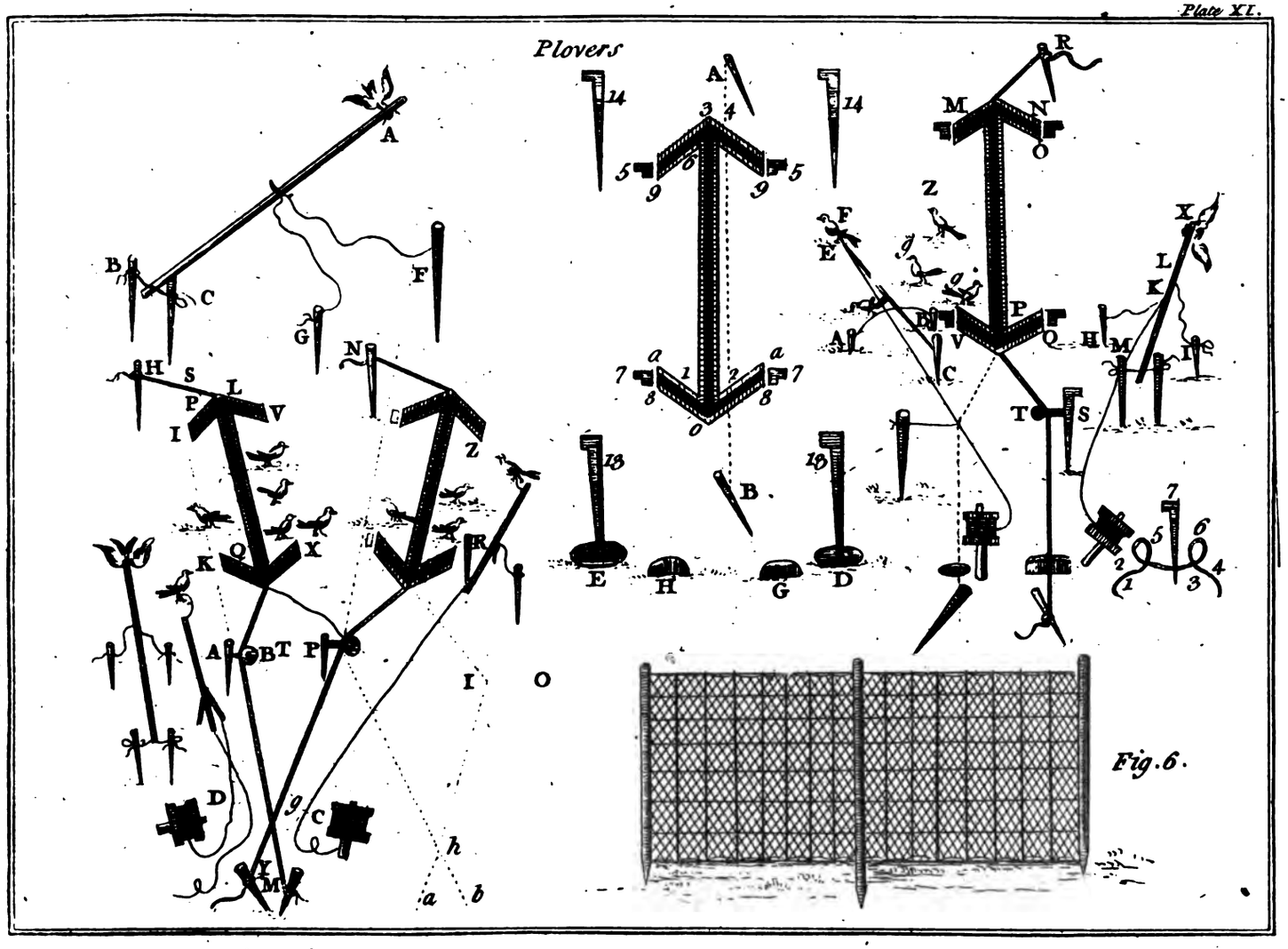

Plovers
Fig. 6.

the two sticks marked 2, and drawn in the figures before, representing the utensils; place the small end at the bottom of the border 1, and the bigger at number 8, not directly straight, but bending at least two feet inwards, as you may see by the pricked line traversing from the hind cypher 1, to 7, which is straight, and not the line 8 O; being thus laid, hold it fast with one hand, and with one finger of the other, or with the handle of your knife, trace out the form of its position, that it may rest imprinted on the earth; then with your great knife marked 7, in the preceding figure, cut along your trace or border of your said stick, and with your hatchet marked 6, cut out the earth between the two traces or lines, *a* 1, 8*o*, beginning at the 1, and ending with 8, in such a manner, that at the end 1, the earth may be taken out but one inch over, and at the end 8, four or five inches large, that your stick may be hid as it were in a gutter.

This being done, carry the other stick, the longer of the two, unto the other end of your long border, and plant it in the self-same fashion at 3, 9, that it may be, as it were, in a gutter, like the other; then take your stick marked 3, which drive into the ground at the end of your two gutters, at 8 and 9, to hinder the two main sticks from beating into the ground, with the force of the net; drive also your two sticks into the ground, about half a foot from your border, at *j* add 3, a little inclining inwards; the intention being to prevent your main sticks from returning back when the net is straitened, until the cord be pulled; besides, should you place them outwards upon the lines 9, 6, and 8, 2, it would be impossible to make your net play, for then, the more you strained the cord, the closer would your main sticks come under the other sticks.

The next thing is to remove all the loose earth, except a handful or two, which lay on the two ends 5 and 7, the better to raise the other ends of the main sticks; and then your plat-form is ready prepared.

Now if you make two other gutters, as 2, 8, 4, 9, on the other side of the border, opposite to the two first, then your platform will serve for two contrary winds, viz. north and south.

It remains, you should fix the stakes in the necessary places; the first that is behind, marked 14, which must be pitched seven or eight paces distant from the end of the border 3, 4, and on one side about half a foot off; the second is a strong peg marked 13, which ought to be driven into the ground six or seven paces from the end of the border 1, 2; and as the other should be on one side about half a foot from the palet 9, so should this from that at 8, and the last H, must be thrust into the earth behind the lodge, about a fathom off, more or less, over against the two palets 8, 9; but if it be a north-east wind, you must pull up these stakes, and turn them to the other side of the plat-form, placing them at the same distances as before-mentioned; and that at H must also be carried to G, and the lodge E to F, and all will be right.

If you intend to take any plovers, be on the place where your plat-form is ready made, with all your implements, early in the morning. The following cut represents a simple plat-form for a west wind. *See* Plate XI. Fig. 7.

Place the main stick in the gutters, and take your net on your left shoulder, or arm, and go towards the lodge, which is about fifteen or sixteen fathoms from the plat-form, and there place the buckle which is at the end of the cord of your net, and so go backwards towards your plat-form, letting the cord trail all along; and being at the stake, or strong peg S, fasten thereto the cord of the pully T, so that the pully may be in a direct line with the two palets or pieces of wood Q O; then when you come to the form, let your net itself fall by degrees, and still retire backwards; when you are at the peg behind, which is at R, strain the cord until it be right and straight and then fix it to the said peg, that it may not slip back.

It will not be amiss to describe to you the manner of the knot, with which you should fasten your cords upon this occasion; suppose that the peg 7 be the piece to which you have a mind to fasten your cord 2, 4, take it in one of your hands at 1, and bring over the thread 2 in order to form the buckle or knot 5, which pass over the peg 7: then make another bow or buckle, at 6, wherein the thread 4 is passed under, and so clap over your peg upon the top of the other bow; then strain the two ends 2 and 4, and your knot will be complete, and will sooner break than get loose: you must be very exact and ready at it.

When the ends of the cords of the net are thus fastened, lift up your main stick P, Q, and place the great end in the gutter Q, and drawing the cord of your net towards the border, force it into the notch in the small end of your main stick, and let somebody hold it there; but in case you have no help, lodge it in the gutter under the peg P, and drive the sharp end of the billiard into the ground to stay there, till you go to the other main stick N, O, and there fix your cord in the notch at the end M; it must be so straightened, that a great deal of strength may be used to get it into the notch: then place your main stick in the gutter under the peg N, remove your billiard from your main stick V, Q, and force your net into the plat-form, so that it be hid under the cord.

The next thing is to direct you in the placing your call-plovers and artificial lap-wings, which must be disposed as you see in the cyphers o o o: in case the wind be not directly east, but inclined a little to the south, then your first pelt, or counterfeit bird, which is only the skin of a bird stuffed with chaff, or the like stuff, marked Z, shall be placed half a foot from the border, and about eight or nine feet from the end V; the rest you may range in such order as they are designed by the figure, at about two or three feet distance from each other: whereas, in case the wind be north-east, place your birds a good deal further from the end V, that is to say, about six feet further, because wild fowl always fly against the wind; and then, as they usually pass over the stales or artificial birds that are between them and the hinder stake R, it may so fall out, that they may pass under the cord, for that will be shorter by a third part when it is let loose, and by half a part when the wind is

ſtrong, which you muſt diligently obſerve; but then when there is but little wind ſtirring, you may place two-thirds of your birds behind the net, and if the wind be ſtrong one-third part is enough, the reſt ſhould be before, becauſe plovers will come where your birds are.

But as for your lap-wings, let them not be mixed with your plovers, but place them juſt by your gutter, as the ſmall letters *g*, *g*, import.

The next thing to be diſpoſed of is your live birds; if you intend to uſe two, drive one before and the other behind; if you have only one, place it behind in this manner; force your little picked ſtaff C into the ground, which is tied to the bigger end of the rod, and then holding up the little end F, ſee if it ſtands right with the lodge, and if ſo, hold it a foot high, while you ſtick the two pegs A, B, into the earth, then tie a live lapwing to it, with a loop of the packthread about its leg, which packthread ſhould be pretty long, to the end the lapwing may not hurt itſelf; then put the tail about the end of the rod, and faſten it with another packthread, and ſo taking one of the reels, faſten the end of the thread, which is above a quarter part of the length of your rod, to the place marked E, and the reel to the lodge; if you place a couple of lapwings, you muſt place the other in the ſame manner before your plat-form.

Your holm-ſtick muſt be placed about three or four fathoms from the border, and about ſix feet above the laſt pelts or artificial birds: to ſet it in right order, do thus, drive into the ground the two pegs marked at the great end M, in ſuch a manner, that the holm-ſtick may move like the axle-tree of a cart between two wheels: take the little end X, and lift your rod almoſt ſtraight up, that it may be right to the lodge, and then faſten your two pegs H, I, in the ground, to which the ends of the packthreads are tied; then faſten the end of your line to one of the reels, at the middle L of the rod, and carry the other end to your lodge; the holm-ſtick muſt be tied at the end X of the rod, and covered with ſome boughs, ſtraw, or the like, that the birds may not be frightened at the ſight thereof.

This holm-ſtick is nothing but the two wings of a kite or buzzard, which are tied with two or three hawk's bells, at the end of the rod, for the purpoſe which ſhall be ſhewed hereafter.

The lodge is to be made after this manner: take five or ſix boughs, about three feet high, and ſtick them in the ground like a hedge; it muſt be open at top, that you may hear and ſee the birds that paſs near you; the perſon muſt be neither clad in white, nor any bright coloured cloaths: the lodge may be eaſily comprehended without giving any deſcription of it; you may ſee it in plate XI, which repreſents two nets managed by a ſingle perſon at the ſame time, from one and the ſame lodge; the ſeat muſt be of turf, about a foot ſquare, and three or four inches thick, which put beneath the cord, in the place marked C, where your cords croſs each other, and where one may touch the hold-faſts *f*, *g*, to ſtrain the nets; you muſt lay a good handful of ſtraw under the cord, upon the turf, to prevent dirting the cord, as well as ſpoiling the turf, and you had need of a good arm-full in your lodge, to keep you warm and dry, as occaſion requires: you muſt likewiſe cut two little holes in the ground, *d*, *e*, to reſt your feet when you ſtrain your cords. The ſame thing muſt be well obſerved if you uſe but one net, but he that will undertake to manage two nets, had need to ſee firſt the manner of it; at leaſt obſerve the directions following:

Take a long cord, repreſented by the pricked line, K, I, which faſten at one end to the peg M, about two or three feet from the ſide of the peg Y; the other end faſten to the peg H, ſo that the place K of the packthread may be between five and ſix fathoms diſtant from the end of the gutter O; when the ſhorter of your two main ſticks is fixed, one end at K, and the other at Q, carry the bigger of them ten or twelve fathoms diſtant, the one end being ſet at I, within half a foot of the packthread, and the other towards L; let them be ſtooped down, and then fix another packthread, repreſented by the pointed line S, T, which muſt be ſtrained hard, after which, with your billiard-ſtick, make your border or plat-form, Q, R, P, then cut out your gutters, and place your pegs and ſticks as in the former net.

You may make this form ſerve for two winds if you make the gutters V, X, Z, R, juſt oppoſite to the others, and then place your main ſticks in them; when you would change your wind, you muſt alſo turn about your cords and tranſplant your lodges; as for example, the foregoing figure repreſents two nets, which are ſet for a weſterly wind; ſuppoſe the wind ſhould chop about, and turn eaſterly, you muſt then firſt of all put the end of the cord M to the letter C, the ſtrong peg A to the little *p*, and the ſtake H, to the little *m*, the main ſtick K to the letter X, the other I to the letter V, and your net will then be ſet to the eaſt wind. You may likewiſe tranſpoſe the other net, by turning the cord Y to the little *a*, the ſtrong peg to the little *o*, and that ſtake behind the letter N: you muſt alſo turn your main ſticks about, and make a low ſeat at the little letter *b*, and dreſs up your lodge there; the two pointed lines, *a*, *b*, *i*, *n*, and *b*, *h*, *p*, *m*, do finally demonſtrate how the nets ſhould be placed when the wind is turning about; your birds, both alive and dead, muſt be ſo altered as you ſee, and you muſt ſet two or three counterfeit birds before the firſt border with a lapwing or call-bird, and another behind the plat-form: the reſt of the artificial birds may be ſet before the border P, Q, and the holm-rod behind the laſt net.

In the next place, we proceed to give ſome inſtructions when and how to call, and alſo when and how to draw the nets for plovers, and the like birds. Your implements being all diſpoſed in good order, as already directed, betake yourſelf to your lodge, having your pipe hanging at your neck; and being every way watchful, when you eſpy any game on the wing, give them a call, and cauſe your call-birds to fly a turn or two as often as occaſion may offer; for the game perceiving the lapwings to ſtir, and fly from place to place, and your other birds ſtand as it were feeding, they will be decoyed thither in expectation of ſome food; when they approach, be ſure you do not make your birds ſtir at all, for

for in that case they would soon perceive, by the force of the motion, that they were tied, and they would fly away for fear of being surprized themselves; neither must you with your pipe give them such loud calls as if at a remote distance, but lessen your notes by degrees.

It is very difficult exactly to imitate the notes, without good observation and practice; but as near as you can, call in the same notes as you hear them, as they pass by you; and be sure not to let fly your net, though there were many of them, and that they were just at the net, unless they come flying against the wind: when you perceive they begin to descend, and that they come within eighteen or twenty feet of the platform, let go your pipe, and lay both hands on your cord, to let fly with all the force you can, just as you perceive the first of the flock between the two stakes K, I; if they are about, or above eight feet high from the ground, let them pass on, for they will wheel about and take another turn, nay, they will often pass by you nine or ten times before you find them right for your purpose; you will find that, generally, they will pitch a good way from your net; if you perceive them so inclined, make a little noise to prevent them; if, nevertheless, they take ground, then get your assistants, (for it is proper there be two at the sport) to steal out at the backside of your lodge, and fetch a great compass behind the plovers; and if you had, for that purpose, your artificial stalking-horse, or cow, it would be of great use; but for want thereof, let him go on all fours, or at least stooping with his head down, by which means, he may by degrees drive them from side to side, within ten or twelve feet of the border, at which time let him throw up his hat, and give a great shout, upon which they will take wing to fly over your nets, at which instant of time, draw in your cords very briskly, and take up all those that are under the net.

When you have gathered up all, clear the place of all the loose feathers that lie on the ground, and then set your net again in its former position, in order to catch more.

If you have two nets planted, when a flock comes, do not presently draw, but let your assistant fetch a compass, and raise them, by which means you may be assured of them.

When you see a great flock coming, your assistant must hold the cord of your holm-rod, that is, the kite's wings, and draw it just when you direct him, that is to say, when the first birds of the flock fly low, and are within about six feet of the form; for as soon as ever they perceive the holm rod aloft, the last of the flock will first pass on, and all of them come within a foot of the ground, so that you may take the greatest part of them, were they ten or fifteen dozen: you must be sure not to stir the holm-rod till the birds are within seven or eight feet of the ground.

When some guinets get into your nets, (which are birds not much bigger than larks) do not busy yourself with killing them, as you do the plovers, one after another, but give them hard blows with your hat, as you would do flies, for they will very readily slip through a net that has large meshes; you will sometimes get above five hundred of them at once in your nets, and yet perhaps not take above thirty.

PLUMAGE. The feathers of a bird, or a bunch of feathers.

PLURA IN HORSES. An inflammation of the plura, lungs, diaphragm, &c. are all attended with a violent fever, have most of their symptoms alike, and the general method of cure is the same in all: the principal peculiarities are distinguished as follows:

The inflammation in the lungs is called a peripneumonia; an inflammation in the pleura is called a pleurisy; an inflammation of the diaphragm is called paraphrenitis, &c.

The signs of a pleurisy are besides the usual signs of a fever, which at the first are moderate, but sometimes very violent, with great difficulty of breathing; he shifts about frequently, is very restless; his flanks work and heave excessively; his belly, for the most part, seems to be drawn up: at the first onset of the disease, he attempts frequently to lie down, but suddenly starts up, turning his head to one side as if he was griped; but in the gripes the heat is succeeded by cold, and this by heat again alternately: when he lays down he rolls, stretches out his legs, &c. as may be seen in the article Cholic; whereas in the pleurisy, the heat is constant both in the body, ears, and feet, with a hard and quick pulse; and what is yet more particular, when in a beginning pleurisy he attempts to lay down, he rises up, and runs back as far as he can, and there stops and pants until he is easier, or falls down.

When the inflammation is in the lungs, the symptoms are in general the same as in the pleurisy, except that in the beginning he is not so restless; and during the whole disease, he never attempts to lie down; he hath a short cough; and his mouth, instead of being parched as in a pleurisy, hath a ropy slime constantly in it, which dribbles away plentifully; and he hath a running at his nose of a reddish yellow colour, which by reason of the great heat, becomes very viscid, his flanks seem easy, except after stirring or drinking a little, his belly seems rather distended, and his ears and feet generally cold.

If the diaphragm is more immediately the seat of the disease, the chief difference from the signs of a pleurisy is, that in this case the jaws are so set at times, that nothing can be got into the mouth.

If the bowels are the seat of the inflammation, and the violence of the disease threaten a mortification, this will be suspected by the hard, black excrements, which are ejected in small pieces, and frequent efforts with seeming great pain.

In the method of cure, the difference is less than the symptoms which are the distinguishing characteristics.

Early as possible bleed: if it is a strong, full-fleshed horse, take away six pints of blood; and if the violence of the disease seems not lessened thereby, take away three or four pounds more the next day; and if need be, take away two pounds more the third day. On speedy and free bleeding in the beginning, the chief dependence is had. A weak, old horse, will require much discretion in these cases, his strength not admitting so free bleeding.

The diet must be cooling, relaxing, and solutive, and the treatment in general the same as in the first five sections under the article Fevers, only after each dose of the saline powder, or with it, as your discretion may lead, have a pint of pectoral drink given him; and if the cough is troublesome, a hornful of the same may be given every two hours, besides what is given with the powder.

Pectoral Drink.

Boil four ounces of *French* barley in three quarts of water, until the barley is soft, then add thereto of sliced figs and bruised raisins, each four ounces; liquorice-root, bruised, one ounce; boil them a little while, so that two quarts of liquor may be strained off.

In obstinate cases that have not given way to the above treatment, a strong decoction of the rattle-snake root hath been singularly useful: it powerfully alters the inflammatory state of the blood; in diseases of the breast and lungs, it promotes expectoration; it promotes both perspiration and urine; and it loosens the belly.

Decoction of Rattle-snake Root.

Take rattle-snake root, four ounces, boil it in six pints of water to four; then pour off the liquor, and give it all in twenty-four hours.

To the emolient clyster, two ounces of nitre (or of GLAUBER's salt, if the horse is very costive) may be added in these inflammatory complaints.

If, by the above, he begins to run at the nose, you may expect a recovery very soon: and as the heat and signs of pain decrease, the medicines may be given more sparingly; and when he begins to eat, the cooling medicines may be omitted, but continue the pectoral drink.

As soon as you can lead him out and exercise him, take care that his diet is opening, light, and nourishing: at least, for a fortnight after he begins to recover he may have three or four small feeds of oats, besides a mash or two of bran, or of barley steeped in hot water until it is soft.

There is also a false bastard pleurisy; it has been called a chest founder. It consists of an inflammation of the muscles that are seated betwixt the ribs, and is known by a stiffness of the body, shoulders, and fore-legs, uncommon heaving of the flanks, a shrinking when touched there; and sometimes a staring coat, and a dry, short cough. It should be remembered, that when horses move with difficulty in their fore-parts, from stiffness or from pain, they are generally said to be foundered in their bodies; but for the most part, the cause is in the hoofs, or in the feet. This should be attended to carefully, and distinguished from the bastard pleurisy.

In order to the cure, bleed, and rub the sides over the ribs, twice a-day, with a mixture of two parts olive-oil, and one part volatile spirit of sal ammoniac: give gentle purges at proper distances: and let the diet be barley, boiled soft, or bran given either dry or in mashes. This disorder sometimes terminates with an abscess on the shoulder, or on the inside of the fore-legs.

POCKET-HAYES. Are certain short nets to take pheasants alive, without hurting them; whose haunts being found out, place yourself for the better view, on some tree, without noise; and when you find they are there, strew a little barley, oats, or wheat, for a train, and in some likely place lay five or six handfuls together, to which they will come, as being drawn thither by the train.

Then plant the pocket-net described under the Articles, CALLS, *Natural* and *Artificial*, Plate III. and so you may lay two or three of them in other places, and plant cross their walks.

These pocket-hayes are about a yard long, and sixteen inches deep: you may also in other paths, place two or three of your collars of horse-hair, in fit places, athwart their paths, to take them by the legs; and be sure to watch very narrowly: the first that is taken will struggle very hard to get off, and will also make a great cry, which may occasion the frightening away of the rest that are near at hand, so that nimbleness is requisite; besides, if they be taken by the strings, they hazard the breaking the lines and their own legs.

POGE. A cold in a horse's head.

POINSON, is a little point, or piece of sharp-pointed iron, fixed in a wooden handle, which the cavalier holds in his right-hand, when he means to prick a leaping-horse in the croup, or beyond the end of the saddle, in order to make him yerk out behind.

POINTS, or toes of a bow of a saddle. *See* Bows.

POINT. A horse is said to make a point, when in working upon volts he does not observe the ground regularly, but putting a little out of his ordinary ground, makes a sort of angle, or point, by his circular tread.

POINTERS. Their great utility and excellence in shooting partridges, moor, or heath-game, which makes them worthy of our regard, are well known. There is so great a variety of pointers, of different make and size, and some good of each kind, that it is no wonder men should differ in their opinions concerning them. The pointers most approved are not small, nor very large; but such as well made, light and strong, and will naturally stand. A small pointer, though ever so good in his kind, can be but of little service in hunting, particularly through a strong piece of turnips, broom, or heath, and the feet of a large heavy dog, will soon be tired by his own weight. It is proper for a young sportsman to procure a dog that is well broken, and to inquire the method and words he has been used to by his former master, in breaking and hunting with him; otherwise the dog will have a new lesson to learn. But if a young sportsman is desirous of breaking his own dogs, the following is the method advised.

Having made choice of a whelp of a known good breed, begin when about three or four months old to teach him to couch at a piece of bread, causing him to lie, whilst you walk round him at some distance, and come nearer to him by degrees: when he has lain as long as you think proper, reward him with the piece of bread, and speak kindly to him. Teach him to fetch and

and carry, to bring a glove or a bird of any sort after you; always observing to cheer him with kind expressions when he does well, and check or speak roughly to him when he does not obey. Use him to obey by whistle and signs with your hand as much as possible; for it is a bad way to make more hallooing in the field than is necessary. When you chastise him, it should be with a whip, so as to make him remember it, using a rough voice at the same time; but the chastisement should not be too severe, and the words you use to him as few as possible. When he is about five months old, use him frequently to be tied up, let him have his chain off for half an hour or an hour morning and evening. It is best to give him his lessons in a morning before you feed him, with your own hand, that it may seem as a reward, the more to endear you to him; but do not overfeed him. Take him out whenever you walk, sometimes leading him in a string; suffer him to go a little before you, and sometimes behind; but when loose, never suffer him to go far from you, unless you hunt with him; and oblige him to come to you at the word back, or here; train him thus by continual lessons, till his attention is always on you to know what he is to do. It will not be amiss frequently to fire off a little powder, and to make him lie down whilst you load again, which will not only teach him to stand fire, but will also make him acquainted with his business in the field; for the neglect of which he would frequently spring birds whilst you are loading. At six, seven, or eight months old, (for all dogs will not begin to hunt alike early) take him into the field the latter end of *August;* and if you have an old staunch pointer, take him with you at first to teach the other to hunt off. When your old dog makes a point, if the young one be not near, bring him up by degrees till he spring the birds, and let him enjoy the scent, which will encourage him to hunt. When you find he knows birds, and will hunt, it is best to take him out alone: observe which way the wind lies, and if you can conveniently, enter on that side of the piece you intend to hunt in, which is opposite the wind, and do not suffer your dog to go in before you, cast him off to the right or left, cross before the wind, walking slowly the same way till he be got to the side of the piece, then whistle or give the word back, at the same time walking the contrary way, pointing with your hand the way you would have him go; bring him back till he comes to the other hedge or side of the field; advancing forward ten or twelve yards, every time he crosses you; repeat this till you have regularly hunted through the whole field; by which means you will certainly find birds, if there be any. When he points, walk up to him, and go forward slowly towards the birds: when you think you are within a few yards of them, if they lie, and your dog be steady, walk in a circle round them, coming nearer by degrees till you spring the birds. If your dog runs after them, (as most young dogs will do) check him with rough words; but if he continues doing so, you must chastise him smartly with your whip, till you break him of that fault. It is very common with young dogs that will stand at first, afterwards to break in and spring the birds, which you must never indulge him in. Put a few small stones in your pocket, and when he stands, endeavour to head him, that is, to get before him, holding up your hand with a stone ready to throw at him, to deter him from springing the birds, whilst you can walk round him; or if it be convenient, take a person with you on horseback, and when your dog commits a fault, or does not obey your call or whistle, let him ride after and whip him; and at the same time, if you whistle or call, he will naturally come to you for protection. Thus he will learn to come to you, as he always should do, when he has committed a fault; for if he be punished severely by yourself, you would find he would not come near you when he knew he had done wrong, which would render it difficult to break him; but if this method be observed, by harsh words and moderate correction, he will soon get the better of the foible, and become staunch. When he commits a fault, command your temper in correcting him, and let it be without passion, and let no fault provoke you to kick or strike so as to hurt him.

The breed of pointers which has been mixed with *English* spaniels, such as are for setting-dogs, (in order to have such as will run fast and hunt briskly) are according to the degrees of spaniel in them, difficult to be made staunch, and many of them never will stand in company. The method already given is the most likely to succeed with these, but I would by no means advise a young sportsman to meddle with such. If you find your dog refractory, and cannot easily make him stand, yet find some qualities that induce you to take a good deal of trouble with him, (such as a very extraordinary sagacity in scent, and that of a strong bold hunter) when he knows birds well, you may hunt him with a leather strap three or four yards long, fastened to his collar, which by his treading on it frequently will shorten his speed, and render him the easier to be stopped. Some will hunt him with a collar lined with another, through which several clout-headed nails are put, the points inward, and a line fastened thereto: which will not only check his running too fast, but when he stops, if the line be long enough for you to get so near as to set your foot on, or take hold of it, if he bolts forward, he will be pricked so as to make him remember it, and will endeavour to avoid the repetition of the punishment. You must be very strict with him, and not hunt him in company with any other dog till he be quite staunch: it often costs a great deal of trouble to make him so; but such dogs, when broken, do often turn out the best.

Some are of opinion, that the way to make pointers stand well in company, is, when they are young, to take them out constantly with your old staunch dogs, and they will learn by degrees to stand both with and without company. But unless he is of a breed known to stand naturally, you will find more difficulty in breaking a vicious dog in company than by himself.

It is also common, not to begin to enter pointers till near a year old; because using them very young shortens their speed. Suppose there is truth in this maxim, and your dog should not hunt altogether so fast, a sufficient amends will be made for his want of swiftness, by hunting more carefully, nor will he run upon birds, or pass them unnoticed, as dogs which run very fast are apt to do. *For more, see* SETTING-DOGS.

POISON. A general remedy for.

Take the inner rind of elder, and longwort, each a handful; of long pepper and liquorice, each an ounce; rue, a ſmall handful; anniſeed, cumminſeeds, and turmeric finely beaten, each half an ounce; a root of garlic bruiſed; madder, two ounces: boil theſe well bruiſed in two quarts of ale, beat in four new laid eggs, and an ounce of treacle; when the liquid part is well ſtrained, give half a pint of the liquor, as hot as maybe, in a morning faſting; do it four times ſucceſſively. Or,

Take a pint of ſtrong vinegar, half a pint of ſweet butter or oil, and of *London* treacle two ſpoonfuls; ſet it on the fire, mix and give it pretty warm.

POISON, IN SHEEP. Cure,

Look under the tongue, if you perceive the ſheep to reel or ſtagger, and you will find a bliſter: cut it, and let out the water; then rub it and the mouth with urine wherein bole ammoniac and ſage have been boiled, and give to drink half a pint of olive oil in a pint of new milk, but keep the ſheep warm two or three days.

POISON IN SWINE. Cure,

Get mayweed a handful, ground ginger an ounce, anniſeeds and fennelſeeds a like quantity, treacle an ounce; boil them in a quart of beer.

POLE-CATS, WEASELS, *&c.* Theſe creatures are very injurious to warrens, dove-houſes, hen-rooſts, *&c.* but the method to take them, in hatches and ſmall iron gins, like thoſe made for foxes, are ſo well known that nothing need to be ſaid of them; only for preſerving dove-houſes from being deſtroyed by pole-cats, they muſt be erected where a ditch or channel may be had to run round them, and this will keep thoſe vermin from making their burrows under ground.

POLL-EVIL, IN HORSES, is a ſort of fiſtula, or deep ulcer between the ears of the pole, or nape of the horſe's neck, which proceeds from corrupt humours falling upon it, or perhaps from ſome bruiſe or blow, or ſome other diſeaſe.

This diſeaſe is produced by different cauſes, and therefore muſt be differently treated. If it proceeds from blows, bruiſes, or any other external violence, let the ſwelling be often bathed with hot vinegar; and if the hair be fretted off by any oozing through the ſkin, inſtead of vinegar alone, uſe a mixture compoſed of two quarts of vinegar, and one of ſpirit of wine. Sometimes the part will be affected with a troubleſome itching, attended with heat and inflammation; in this caſe let the creature be blooded, and poultices, compoſed of bread, milk, and elder flowers, applied. And if this be performed at the beginning of the diſeaſe, and at the ſame time proper phyſic given the creature, the ſwelling will be often diſperſed, and the diſeaſe cured without ſuppuration.

But when the ſwelling appears to be critical, and alſo to have matter formed in it, the beſt, and indeed the only effectual method, is to apply proper poultices, in order to facilitate the ſuppuration, and aſſiſt the burſting of the tumour. Sometimes it will be neceſſary to open it with a knife, in order to evacuate the forbidden matter. In this caſe you muſt be very careful not to wound the tendinous ligament, that runs along the neck under the mane: and when the matter is formed on both ſides, two apertures will be neceſſary; for you muſt by no means divide the ligament, though it will be neceſſary to give vent to the matter formed on each ſide.

Sometimes the matter will flow in large quantities, reſembling melted glue, and be of an oily conſiſtence. When this happens, a ſecond inciſion will be neceſſary, eſpecially if you diſcover any cavities. The orifices muſt be made in the moſt depending parts, and the wound dreſſed at firſt with the common digeſtive liniment, compoſed of turpentine, honey, and tincture of myrrh; and after digeſtion, with the precipitate ointment. Experience has alſo proved the following medicine to be of very great uſe in the poll-evil.

Take of vinegar or ſpirit of wine half a pint; of vitriol diſſolved in ſpring-water, half an ounce; and of tincture of myrrh, four ounces.

Waſh the wound with this mixture twice a-day, and lay over the part a ſufficient quantity of tow ſoaked in vinegar, and the white of eggs beat together; obſerving that if the fleſh be very luxuriant, to pare it down with the knife, before you waſh the wound. And by this application alone, you may often cure the poll-evil, without the trouble and expence of other medicines.

But the ſhorteſt method of curing this diſeaſe, is what the farriers call ſcalding; and this will ſucceed when the wound is foul, of a bad diſpoſition, and a large flux of matter. The ſcalding mixture, generally uſed, is made in the following manner: Take of corroſive ſublimate, verdigris in fine powder, and *Roman* vitriol, of each two drachms; of green vitriol, or copperas, half an ounce; of oil of turpentine and train oil, each eight ounces; and of rectified ſpirits of wine, four ounces; mix the whole together in a bottle. Or,

Take *Ægyptiac* ointment, two ounces; oil of vitriol, one ounce; oil of turpentine, two ounces; and of common ſweet oil, half a pint. Or,

Take corroſive mercury, one drachm; *Roman* vitriol, one drachm; verdigris, one drachm and an half; rectified ſpirit of wine, two ounces; and of common ſweet oil, ſix ounces.

This latter is ſtronger than the firſt.

This is the ſtrongeſt compoſition of what is termed the ſcalding mixture: and very often a milder will be ſufficient, which may be made by changing the corroſive ſublimate for red precipitate, and the *Roman* for white vitriol.

The manner of uſing the above compoſition is this: they firſt clean the abſceſs very well with a ſponge dipt in vinegar; then they put a proper quantity of the mixture into an iron ladle, with a ſpout to it, make it ſcalding hot, pour it into the abſceſs, and cloſe the lips together with one or more ſtitches. They let this continue two or three days, when they open the orifice, and examine the abſceſs; if they find it good matter and not in too great quantity, thay conclude that the diſeaſe will be cured without any other application, except bathing it with ſpirits of wine. But if, on the contrary, the matter flows abundantly, and at the ſame time appears of a thick conſiſtence, the operation muſt be

be repeated till the flux of matter lessens, and acquires a thick consistence.

PONDS FOR FISH. As for the making of these ponds, it is agreed, those grounds are best which are full of springs, and apt to be moorish, for the one will breed them well, and the other will preserve them from being stolen.

The situation of the pond is also to be considered, and the nature of the currents that fall into it; likewise that it be refreshed with a little water, or with the rain-water that falls from the adjacent hilly ground.

It has been observed, that those ponds which receive the stale and dung of horses, and other cattle, breed the largest and fattest fish.

As to making a fish-pond, let the head of it be the lowest part of the ground, and the trench of the flood-gate or sluice have a good swift fall, that it may not be too long in emptying when you have a mind to draw it.

You may plant willows or owlers about it, or both, and then cast in bavins in some places not far from the side, and in the most sandy places, for fish both to spawn upon, and to defend them and the younger fry from the many fish, and also from vermin that lie at watch to destroy them, especially the spawn of the carp and tench, when it is left to the mercy of ducks or vermin.

LEBAULT, DUBRAVIUS, and others advise, that you make choice of such a place for your pond, that it may be refreshed with a little rill, or with rain-water running or falling into it; by which fish are more inclined both to breed, and are also refreshed and fed the better, and do prove to be of a much sweeter and more pleasant taste.

To which end it is observed, that such pools as be large and have most gravel, and shallows where fish may sport themselves, do afford fish of the purest taste. And note, that in all pools it is best to have some retiring place; as namely hollow banks, or shelves, or roots of trees to keep them from danger; and, when they think fit, from the extreme heat of summer; as also, from the extremity of cold in winter. And note, that if many trees be growing about your pond, the leaves thereof falling into the water, make it nauseous to the fish, and the fish to be so to the eater of it.

It is noted that the tench and eel love mud, and the carp loves gravelly ground, and in the hot months to feed on grass: you are to cleanse your pond, if you intend either profit or pleasure, once every three or four years, especially some ponds, and then let it lie dry six or twelve months, both to kill the water-weeds, as water lilies, candocks, reate and bulrushes that breed there; and also that as these die for want of water, so grass may grow in the pond's bottom, which carps will eat greedily in all the hot months if the pond be clean. The letting your pond dry and sowing oats in the bottom is also good, for the fish feed the faster: and being some time let dry, you may observe what kind of fish either increases or thrives best in that water; for they differ much both in their breeding and feeding.

LEBAULT also advises, that if your ponds be not very large and roomy, that you often feed your fish by throwing into them chippings of bread, curds, grains, or the entrails of chickens or of any fowl or beast that you kill to feed yourselves; for these afford fish a great relief. He says that frogs and ducks do much harm, and devour both the spawn and the young fry of all fish, especially of the carp.

Avoid much shooting at wild-fowl, for that frightens, harms and destroys the fish.

Note, that carps and tench thrive and breed best when no other fish is put with them into the same pond; for all other fish devour their spawn, or at least the greatest part of it. And note, that clods of grass thrown into any pond, feed the carps in summer; and that garden earth and parsley thrown into a pond, recovers and refreshes the sick fish. And note, that when you store your pond, you are to put into it two or three melters for one spawner, if you put them into a breeding-pond; but if into a nurse pond, or feeding-pond, in which they will not breed, then no care is to be taken, whether there be most male or female carps.

It is observed, that the best ponds to breed carps are those that are stony or sandy, and are warm, and free from wind, and that are not deep, but have willow trees and grass on their sides, over which the water does sometimes flow: and note, that carps do more usually breed in marle-pits, or pits that have clean clay bottoms, or in new ponds, or ponds that lie dry a winter season, than in old ponds, that be full of weeds.

As the method of ordering fish-ponds is now very well known, and there are few books of gardening but what give some directions about it, it is hoped the reader will think the following quotation from BOWLKER sufficient.

"When you intend to stock a pool with carp or tench, make a close ethering-hedge across the head of the pool about a yard distance of the dam, and about three feet above the water, which is the best refuge for them I know of, and the only method to preserve pool-fish; because if any one attempts to rob the pool, muddies the water, or disturbs it with nets, most of the fish, if not all, immediately fly between the hedge and the dam, to preserve themselves; and in all pools, where there are such shelters and shades, the fish delight to swim backwards and forwards, through and round the same, rubbing and sporting themselves therewith. This hedge ought to be made chiefly of orls, and not too close, the boughs long and straggling towards the dam, by which means you may feed and fatten them as you please. The best baits for drawing them together at first are, maggots or young wasps; the next are, bullock's-brains, and lob-worms chopped together, and thrown into the pools in large quantities, about two hours before sun-set, summer and winter. By thus using these ground-baits once a day for a fortnight together, the fish will come as constantly and naturally to the place as cattle to their fodder; and to satisfy your curiosity, and convince you herein, after you have baited the pool for some time, as directed, take about the quantity of a two-penny loaf of wheaten bread, cut it into slices and wet it; then throw it into the pool where you had baited, and the carp will feed upon it: after you have used the wet bread three or four

four mornings, then throw some dry bread in, which will lie on the top of the water: and if you watch, out of sight of the fish, you will presently see them swim to it and suck it in. I look upon wheaten bread to be the best food for them, though barley or oaten bread is very good. If there be tench and pearch in the same pond, they will feed upon the four former baits, and not touch the bread. Indeed there is no pool-fish so shy and nice as carp. When the water is disturbed, carp will fly to the safest shelter they can; which I one day observed, when assisting a gentleman to fish his pool; for another person disturbed the water, by throwing the casting net, but caught not a carp; whereupon two or three of us stripped, and went into the pool, which was provided with such a sort of a hedge in it as is before described, and thither the carp had fled for safety: then fishing with our hands on both sides of the hedge, that is, one on either side, we catched what quantity of carp was wanting.

The best way to make the pond-head secure, is to drive in two or three rows of stakes about six feet long, at about four feet distance from each other, the whole length of the head, the first row of which is to be rammed, at least, four feet deep, that they may stand strong and sure.

Or if you happen to find the bottom false, especially if it consists of a running-sand, you may besides lay the foundation with quick-lime, which slacking will make it as hard as a stone.

Then dig your pond, and cast the earth among the piles and stakes, and when they are well covered over, drive in another row or two over them, ramming in the earth in the void spaces, that it may lie close and keep in the water; and so you may continue stakes upon stakes, ramming in the earth till your pond-head be of the height you designed it.

The inside of the dam must be very smooth and strait, that no current may have power over it.

If the pond carry six feet water, it is enough; but it must be eight feet deep, to receive the freshes and rains that should fall into it.

It would also be advantageous to have shoals on the sides, for the fish to sun themselves on, and lay their spawn on; besides on other places, some holes, hollow banks, shelves, roots of trees, islands, *&c.* to serve as their retiring places.

Besides it is to be considered, whether or not you design your pond for a breeder, if you do, never expect any large carps from thence, for the greatness of the number of the spawn will overstock the pond, and a store-pond has always been accounted the best for large carps.

If you would make a breeding-pond become a store-pond, when you sue, see what quantity of carp it will contain, and then put in either all melters, or all spawners, by which means, in a little time, you may have carps that are both large and exceeding fat; thus by putting in but one sex, there is an impossibility of the increase of them; but the roach will, notwithstanding, multiply abundantly.

As to the situation and disposition of the principal waters, a method must be observed, to reserve some great waters for the head quarters of the fish, from whence you may take, or wherein you may put, any ordinary quantity of fish. You should also have stews, and other auxiliary waters, so that you may convey any part of the stock from one to the other, by which means you will never want, and need not abound; and farther, lose no time in the growth of the fish, but employ the water, as land is employed, to the best advantage.

You are to view the grounds, and find out some fall between the hills, as near a flat as may be, so as to leave a proper current for the water.

If there be any difficulty in making a judgment of this, take an opportunity after some sudden rain, or the breaking up of a great snow in winter, and you will plainly see which way the ground casts, for the water will take the true fall, and run accordingly.

The condition of the place must determine the quantity of the ground which is to be covered with water.

For example; we may well propose in all fifteen acres in three ponds, or eight acres in two, and not less; and these ponds should be placed one above another, so that the point of the lower may almost reach the upper: which contrivance is no less beautiful than advantageous.

The head, or bank, which by stopping the current is to raise the water, and so make a pond, must be built with clay and earth, taken out of the pan or hollow digged in the lowest ground above the bank; and that pan should be shaped as a half oval, the flat of which comes to the bank, and the longer diameter runs square from it. *See* BANKS.

POND-HEADS, TO MAKE AND RAISE: it is evident that if a dam be made across a valley, or low marsh, where the water runs, it will produce a pond: and as the dam or bank is higher than the centre-point, which lies against the lowest ground, so much the deeper is the pond; and if the hills on each side rise steep and quick, the water stopt will cover less ground than if they had a slow or gentle ascent.

For the making of the bank head, be sure it be firm, and not apt to leak, which it will certainly do if made only of earth; therefore it is necessary to carry up a bed or wall of clay, the whole length of the bank, with a good ramming a foot or two from below the surface of the ground, to such a height as the water is designed to stand, allowing a split or two at least for that purpose, otherwise the water lying under a great weight from its depth, will work itself underneath

As the clay is rammed, take care that earth be brought to carry up the bank with it, in order to prevent its being searched and cracked by the height of the sun, which is of very ill consequence; and therefore when come to its full height, it must forthwith be covered and closed with mould: you must allow three feet to the breadth of this clay bed, raising it to such a height as you would have the water stand, and raise it with earth three feet higher; though two feet would serve, were it not that the unavoidable sinking of the bank, will require at least one foot.

When several ponds or stews are projected to be sunk

ſunk at the ſame time, there will be had great advantage by the clay taken out of them, that will be much more than is neceſſary for the bed, and which may ſtrengthen the bed, upon account of its being preſſed down by the tumbrels or carts, on each ſide of it, and the bank will be made very firm; it will likewiſe ſave the breaking of the ground within the pond, which is a great benefit in the ſeed of the fiſh.

As to the dimenſions, they are governed by the manner of the hill riſing: for if it be ſteep, then in order to cover a ſufficient quantity of ground, you muſt raiſe the bank higher, and of conſequence it muſt be made ſtronger than when the ground has a gentle aſcent, ſo as a moderate height would throw the water upon ground enough; of this there is a great difference, for in ſome places ten feet high may cover as much as twenty feet in others, which may be eaſily diſcovered by the water-level, whereby you may ſtake the water-line upon the ground to any height, and fix the determined height of the bank.

PONT-LEVIS is a diſorderly reſiſting action of a horſe, in diſobedience to his rider, in which he rears up ſeveral times running, and raiſes ſo upon his hind legs, that he is in danger of coming over.

POPE, OR RUFF. This fiſh with a double name, is ſmall, and rarely grows bigger than a gudgeon; in ſhape not unlike the pearch, but reckoned better food, being pleaſant in taſte. His haunts are the deepeſt running places in a gravel river, the exact bottom whereof having found by plumbing, and your hooks being baited with ſmall red worms, or brandling worms, you may fiſh with two or three hooks, and you will have excellent ſport; for he is a greedy biter, and they are in great ſhoals together, where the water is deep, ſmooth and calm; ſo that if you would take a good quantity of them, bait the ground with earth, and fiſh for them with a ſmall red worm.

PORTER TO CARRY. Uſed in the *French* manage, for directing or puſhing on a horſe at pleaſure, whether forwards, upon turns, &c.

POULTRY is a term given to all kinds of domeſtic fowls brought up in a farm-yard, as cocks and hens, ducks, geeſe, turkies, &c. all of which we ſhall ſpeak of, and begin with

Dunghill Cocks and Hens, generally termed Fowls.

The country yard cannot be ſaid to be complete, till well ſtocked with fowl, which advantage will appear to every one who keeps them. The pooreſt villager may reap the ſame benefit from the products as the moſt ſubſtantial farmer, they being able to ſhift for themſelves the greateſt part of the year, by their feeding on inſects, corn, or any thing, almoſt, that is edible by any ſort of animal.

I ſhall not enter into a minute deſcription of the ſeveral ſorts of cocks and hens, only adviſe you to chuſe thoſe that are the beſt breeders, and the beſt layers; the oldeſt being always reckoned the beſt ſitters, and the youngeſt the beſt layers; but no ſort will be good for either, if they are kept too fat; the beſt age to ſet a hen for chickens is from two years old to five, and the beſt month to ſet them is *February*; though any month between that and *Michaelmas* is good. A hen ſits twenty-one days, whereas geeſe, ducks, and turkies, ſit thirty. Obſerve to let them have conſtantly meat and drink near them, while they ſit, that they may not ſtraggle from their eggs and chill them:

One cock will ſerve ten hens.

If fowls are fed with buck or *French* wheat, or with hemp-ſeed, it is ſaid, they will lay more eggs than ordinary; and buck-wheat, either whole or ground, made into paſte, which is the beſt way, is a grain that will fatten fowls or hogs very ſpeedily; but the common food uſed is barley-meal, with milk or water, but wheat-flour moiſtened is beſt.

A good hen ſhould not differ from the nature of the cock; ſhe ſhould be working, vigilant and laborious, both for herſelf and her chickens; in ſize, the biggeſt and largeſt are the beſt, every proportion anſwerable to thoſe of the cock, only inſtead of a comb, ſhe ſhould have upon her crown a high thick tuft of feathers.

She ſhould have good and ſtrong claws; but it will be better if ſhe has no hinder claws, becauſe they often break the eggs, and, beſides, ſuch as have, do ſometimes prove unnatural.

Crowing hens are neither good layers nor good breeders.

The elder hens are rather to be choſen for hatching than the younger, becauſe they are more conſtant, and will ſit out their time; but if you chuſe for laying, take the youngeſt, becauſe they are luſty, and prone to generation; but do not chuſe a fat hen for either of theſe purpoſes; for if ſhe be fat, ſhe will forſake her neſt; the eggs ſhe lays will be without ſhells, and beſides ſhe will grow ſlothful and lazy.

Thoſe eggs that are laid when the hens are a year and a half, or two years old, are the beſt; you muſt at that time give the hens plenty of victuals, and ſometimes oats with fenugreek to heat them, if you would have large eggs; for thoſe that are fat commonly lay but ſmall ones; mix ſome chalk with their food, or mix ſome bruiſed brick with their bran, moiſtened with a little water, and give them their belly-full of half-boiled barley, with vetch and millet.

Some hens have the ill faculty of eating their eggs: to prevent this, take out the white of an egg, and put moiſt plaiſter round about the yolk, and ſuffer it to grow hard; and when the hen attempts to eat it, and finds ſhe cannot do it, ſhe will ſoon give over breaking her eggs.

You may likewiſe pour a clear plaiſter upon the yolk of an egg, and let it harden, ſo that it may ſerve for a ſhell, and put into the neſt; or you may ſhape an egg of plaiſter, or chalk, and let that be for a neſt egg.

Thoſe hens that have ſpurs often break their eggs, and generally will not hatch them, and they will ſometimes eat them; theſe muſt be ſcowered, as well as thoſe that ſcratch and crow like a cock; firſt, by plucking their great quills out of their wings, and by feeding them with millet, barley, and paſte, cut into bits, pounded acorns and bran, with pottage or

crumbs of wheat-bread, steeped in water, or barley-meal.

Keep them in a close place, and at rest, and pull the feathers from their heads, thighs, and rumps. If a hen be too fat, or has a loosenesſ, she will lay windy eggs.

A hen will sit well from the second year of her laying to the fifth: the best time to set a hen, that the chickens may be large and most kindly, is in *February*, in the increase of the moon, that she may disclose the chickens in the increase of the next new moon, being in *March*; for one brood of this month's chickens is worth three of those of any other month.

Hens may set from *March* to *October*, and have good chickens, but not after that time, for the winter is a great enemy to their breeding.

A hen sits just twenty-one days, and if you set a hen upon the eggs of ducks, geese, or turkies, you must set them nine days before you put her own eggs to her, of which a hen will cover nineteen; but always set an odd egg, what number soever you set her with.

It will also be proper to mark one side of the eggs when you put them under the hen, and to observe whether she turns them from the one side to the other, and if she does not, then take an opportunity when she is from them to turn them yourself. But a hen that does not turn them herself is of the less value.

Take care that the eggs you set a hen on be new, which may be known by their being heavy, full, and clear; this may be discovered by looking through them in the sun; nor do you choose the largest, for they have oftentimes two yolks, and though some are of opinion that such will produce two chickens, it proves commonly a mistake, and if they do, they generally prove abortive and monstrous.

A hen must not be taken off or disturbed from her nest, for that will make her utterly forsake it.

While she is sitting you must place her meat and water near her, that her eggs may not cool while she is gone to seek her food. If she should be absent from her nest, stir up the straw, and make it soft and handsome, and lay the eggs in the same order she left them.

It is very necessary to perfume her nest with rosemary or brimstone, and you must take care that the cock does not come at the eggs and sit upon them, for he will endanger the breaking of them, and cause the hen not to like her nest so well as before.

When hens are laying, the old straw should be taken away, and fresh put in, that it may not breed fleas, or other vermin, which much incommodes them.

The maladies incident to hens are as follow:

Setting hens are sometimes troubled with lice and vermin: for the cure, pound burnt cummin and stapnisgar, of each equal quantities; and mix it with wine, and rub the hens with it, or wash them with a decoction of wild lupines.

If hens are troubled with a loosenesſ, mix a handful of barley-meal and as much wax, in some wine; make it into a mass, and give it them in the morning before they have any other meat, or else let them drink a decoction of apples or quinces.

Hens, by laying too many eggs, sometimes exhaust their strength and languish: the same likewise happens by hens sitting too long; to remedy this, take the white of an egg, which you must roast till it looks as if it was burnt; mix this with an equal quantity of dried raisins, also burnt, and give the hen this fasting.

Your hen-house must be large and spacious, with a pretty high roof and strong walls, to keep out both thieves and vermin; let there be windows on the east side, that they may enjoy the benefit of the rising sun, strongly lathed and close shut; upwards, and round about the inside of the wall upon the ground, should be made large pens of three feet high, for geese, ducks, and large fowls to sit in, and near unto the covering of the house should be long perches, reaching from one side of the house to the other, on which should sit cocks, hens, capons, and turkies, each on such perches as they are disposed.

At another side of the house, at the darkest part of the ground pens, fix hampers full of straw for nests, in which hens should lay their eggs; but when they sit to hatch chickens, then let them sit on the ground, otherwise it will be dangerous.

Also let there be pins stuck in the walls, that the poultry may climb to their perches with the greatest ease.

The floor must not be paved, but made of earth smooth and easy. Let the smaller fowl have a hole made at one end of the house, to go in and come out at when they please, or else they will seek out roosts in other places; but of larger fowl, you may open the door morning and evening.

It would be better if the hen-house was situated near some kitchen, brewhouse, bakehouse, or kiln, where it may have the heat of the fire, and be perfumed with smoke, which is to pullets both delightful and wholesome.

As soon as your chickens are hatched, if any be weaker than the rest, wrap them in wool, and let them have the heat of the fire; it will also be very good to perfume them with rosemary; the first hatched chickens may be kept in a sieve till the rest are disclosed, for they will not eat for two days; some shells being harder than others, they will require so much more time in opening; but unless the chickens are weak, or then unkind, it will not be amiss to let them continue under her, for she will nourish them kindly.

When they are two days old, give them very small oatmeal, some dry, and some steeped in milk, or else crumbs of fine white bread; and when they have gained strength, curds, cheese parings, white bread, crusts soaked in beer or milk, barley-meal, or wheaten bread scalded, or the like soft meat, that is small and will be easily digested.

It is necessary to keep them in the house for a fortnight, and not suffer them to go abroad with the hen to worm. Green chives chopped among their meat is very good, and will preserve them from the rye or other diseases

diſeaſes in the head, and never let them want clear water, for puddle water will be apt to give them the pip.

Nor muſt you let them feed upon tares, darnel, or cockle, for theſe are very dangerous to young ones, nor let them go into gardens till they are ſix weeks old.

If you would have them crammed, coop them up when the dam has forſaken them, and cram them with dough made of wheaten meal and milk, which dip in milk, and thruſt down their throats, but let them not be too big, leſt you choak them; and they will be fat in a fortnight.

To diſtinguiſh whether a chicken is good or not: after a chicken is killed it will be ſtiff and white, and firm in the vent, if new killed; but tender, and green in the vent, if ſtale.

If you rub your finger on the breaſt of a ſcalded chicken, if it be new killed it will feel rough; but if ſtale, ſlippery and ſlimy.

A crammed chicken, if it be fat, will have a fat rump, and a fat vein upon the ſide of the breaſt of her, like a pullet.

In order to fatten chickens, you muſt put them into coops, and feed them with barley-meal; put likewiſe a ſmall quantity of brickduſt into their water, which they ought never to be without: this laſt will give them an appetite to their meat, and fatten them very ſoon; for in this caſe it muſt be conſidered, that all fowls and birds have two ſtomachs, as they may be called, the one is their crop, that ſoftens their food, and the other the gizzard, that macerates the food; in the laſt we always find ſmall ſtones and ſharp ſand, which help to do that office, and without them or ſomething of that kind, a fowl will be wanting of its appetite to eat; for the gizzard cannot maſticate, or as it may be ſaid, grind the food faſt enough to diſcharge it from the crop, without ſuch ſand or ſtones: and in this caſe the brickduſt is aſſiſting.

Ducks.

Ducks are very neceſſary for the huſbandman's yard, in that they require no charge in keeping; they live on loſt corn, worms, ſnails, &c. for which reaſon they are very good for gardens. Once in a year they are very good layers of eggs, eſpecially a ſort of duck that turns up the bill more than the common kind; and when they ſit they need little attendance, except to let them have a little barley, or offal corn and water near them, that they may not ſtraggle far from their neſt to chill their eggs.

In general it is found more profitable to ſet a hen upon the ducks eggs, than any kind of duck whatever, becauſe the old one leads them when hatched, too ſoon to the water, where, if the weather be froſty, ſome will be loſt. They follow the hen a good while upon the land, and ſo get hardy before they venture to the water.

About thirteen eggs is the proper number to let a duck ſit upon; the hen will cover as many of theſe as of her own, and will bring them up well: ſo that every way ſhe is more profitable for that purpoſe.

When the ducklings are hatched they require no care, if the weather be tolerably good; but if they happen to be produced in a very rainy ſeaſon, it would be right to keep them under cover a little, eſpecially in the night; for though the duck naturally loves water, it requires the aſſiſtance of its feathers, and, till they are grown, is eaſily hurt by the wet.

The fattening of ducks at any age is very eaſy, and whether it be the duckling, or the grown duck, the method to be uſed is exactly the ſame. They are to be put in a quiet dark place, and kept in a pen, where they are to have plenty of corn and water: any kind of corn will do, and with this ſingle direction, they will fatten themſelves extremely well in fifteen or twenty days; and will bring a price that very well repays their feeding.

Geeſe.

The benefit ariſing from geeſe are, for food, their feathers, and their greaſe. They will live upon commons, or any ſort of paſture, and need little care and attendance; only they ſhould have plenty of water. The largeſt geeſe are reckoned the beſt, but there is a ſort of *Spaniſh* geeſe that are much better layers and breeders than the *Engliſh*, eſpecially if their eggs are hatched under an *Engliſh* gooſe.

Geeſe lay in the ſpring, the earlier the better, becauſe of their price and of their having a ſecond brood. They commonly lay twelve or ſixteen eggs each. You may know when they will lay, by their carrying of ſtraw in their mouths, and when they will ſit, by their continuing on their neſt after they have laid. A gooſe ſits thirty days; but if the weather be fair and warm, ſhe will hatch three or four days ſooner. After the goſlings are hatched, ſome keep them in the houſe ten or twelve days, and feed them with curds, barley-meal, bran, &c. After they have got ſome ſtrength, let them out three or four hours in a day, and take them in again, till they are big enough to defend themſelves from vermin. One gander will ſerve five geeſe.

If you would fatten green geeſe, you muſt ſhut them up when they are about a month old, and they will be fat in about a month more. Be ſure to let them have always by them in a ſmall rack ſome fine hay, which will much haſten their fatting. But for fatting of older geeſe, it is commonly done when they are about ſix months old, in or after harveſt, when they have been in the ſtubble fields, from which food ſome kill them, which is a good way; but thoſe who have a mind to have them very fat, ſhut them up for a fortnight or three weeks; and feed them with oats, ſplit beans, barley-meal, or ground malt mixed with milk, the beſt thing to fatten them with being malt mixed with beer. But in fatting of all water fowl you may obſerve, that they uſually ſit with their bills on their rumps, where they ſuck out moſt of their moiſture and fatneſs, at a ſmall bunch of feathers, which you will find ſtanding upright on their rumps and always moiſt, with which they

they trim their feathers, which makes them oily and slippery more than other fowls feathers are, that the water may slip off them, which, if cut away close, will make them fat in less time, and with less meat than otherwise. Geese will likewise feed on and fatten well with carrots cut small, and given them; or if you give them rye before or about *Midsummer*, it will strengthen them, and keep them in health, that being commonly their sickly time.

In some countries they shear the geese for their feathers, and some pull them twice a year; but this latter way is more injurious to them, and therefore it is better staying till moulting time, or till their death for their feathers.

Turkies.

Turkies are fowls that prosper very well in open countries, where there is not shelter to harbour such vermin as destroy them: for they are naturally inclined to ramble. The hens likewise are so negligent of their young, that whilst they have one to follow them, they never take any care of the rest; and therefore there must be a great deal of care taken of them whilst they are young, to watch them, and to keep them warm, they being a bird that cannot bear the cold. But some, where they have a conveniency of a small cover near the house, let them take their liberty, and seek their own nests; but it is only in some particular places that they do well with such management. I knew a gentleman that had a hen turkey of the wild kind from *Virginia*, of which, and an *English* cock, he raised a very fine breed, that bred wild in the fields, and always became tame when grown up; they were a very hardy breed, and much larger than ours, and reared their young ones without any care or trouble, breeding much better than our *English*.

If you keep them with corn, they are very great feeders, and will devour a great deal; but if left to their liberty when grown up, they will get their own living, without either trouble or charges, by feeding on herbs, seeds, &c.

Turkies being very apt to straggle, will often be laying their eggs in secret places, and therefore the common sort of them must be often watched, and made to lay at home. They begin to lay in *March*, and will sit in *April*. Eleven or thirteen eggs are the most they sit on. They hatch in between twenty-five and thirty days; and when they have hatched their brood, you must be careful to keep the young ones warm, for the least cold kills them. Feed them either with curds, or green fresh cheese cut in small pieces. Let their drink be new milk, or milk and water. Some give them oatmeal and milk boiled thick together, into which they put wormwood chopped small, and sometimes eggs boiled hard, and cut in little pieces. You must feed them often, for the hen will not take much care of them, and when they have got some strength, feed them abroad in a close walled place, where they cannot stray; you must not let them out till the dew is off the grass, taking care to have them in again before night, because the dew is very prejudicial to them.

For the fatting of turkies, sodden barley is very excellent, or sodden oats for the first fortnight, and for another fortnight cram them as you do capons. They are only to be crammed in a morning, which must be given to them warm, and let out all day, being sometimes fed with corn while out; because, being a sullen bird, they are apt else not to fat so kindly.

Their eggs are reckoned very wholesome, and a great restorer of nature.

POUNCES, the talons or claws of a bird of prey.

PRESS UPON THE HAND: a horse is said to resist, or press upon the hand, when either through the stiffness of his neck, or from an ardour to run too much a-head, he stretches his head against the horseman's hand, refuses the aid of the hand, and withstands the effects of the bridle.

To press or push a horse forwards, is to assist him with the calves of your legs, or to spur him to make him go on.

To PRICK, OR PINCH, is to give a horse a gentle touch of the spur, without clapping them hard to him.

Prick with the right: pinch with the left: pinch with both.

To PRICK, OR PINCH, is an aid; but to bear hard with the spur, is correction.

PRICKING OF A HORSE'S FOOT, is the hurt received by a nail drove too far into the foot, so as to reach the quick, or press the vein in the horse's foot when he is shod. *See* FEET OF A HORSE.

PRICKER (Hunting-term) a hunter on horseback.

PRICKET, a spitter, or young male deer of two years old, that begins to put forth the head.

PRICKING (with Sportsmen) the footing of an hare when she beats on the hard heath way, and her footing can be perceived.

PRICKT, otherwise called ACCLOYED, OR RETRATE, &c. in respect to horses, signifies only the having a prick by the negligence of the farrier in driving the nails, by their weakness, ill pointing or breaking them, which if not presently taken out, will, in time, break out into a foul sore: you may discern it by the horse's going lame; but if you would know it more certainly, pinch him round the hoof with a pair of pincers, and when you come to the place aggrieved, he will shrink in his foot; or else you may try where he is pricked by throwing water on his hoof, for that place where he is hurt will be sooner dry than the rest.

PUNCH, a well-set, well-knit horse, is short backed, and thick shouldered, with a broad neck, and well lined with flesh.

PURGATION, IN HORSES. The danger of purging horses, subsists only in the imaginations of the inexperienced, in the ill choice of drugs, or in their injudicious administration. The drastic, or rough and violent purges (and such, on account of their cheapness, are generally in use for horses) of course make them sick, irritate and convulse their bowels, and occasion frequent violent strainings, after voiding the shower of excrement; strong mercurials have ever these effects. Such appearances lead to the erroneous

erroneous conclusion, that a horse cannot be purged with safety; but the mild or eccoprotic purges have no such ill effects, on the contrary, they give a horse the least possible disturbance, his only punishment being the mere swallowing the ball or drink, and the temporary deprivation of solid meat; and yet these confer much more lasting benefit than the former. The chief of these innocent, and at the same time efficacious cathartics, equally adapted to the salutary purpose of cleansing, exhilarating, and invigorating the human and brute body, are, aloes, succotrine, Turkey-rhubarb, jalap, and the neutral salts; medicines so exquisitely fitted by nature to the intention, as to leave us nothing to desire. If Barbadoes-aloes are made use of, a few drachms only should be applied at a time, which will obviate its drastic effects.

Mr. LAWRENCE, says, he has been many years in the constant habit of purging horses with salts, and with never failing success. The saline purges appear to debilitate the animal body by their operation less than any others, and to refrigerate the humours more, they are specific in certain cases, and in fact the idea of elective purgation must be allowed to a certain degree; for instance, in the case of the absorbent magnesia, which invariably attracts acids, and from the combination results a neutral purging liquor. Many horses require no other purges whatever than salts, and by the use of them may be kept in the first style of condition. They are also excellent alteratives, as one might fairly presume previous to experience, by the analogy of the salt marshes, where horses receive so much benefit from the peculiar saline quality of the water.

Salts usually prove a powerful diuretic to a horse, and are specifically calculated for such, as from high-feeding, and standing much in the stable, are oppressed with a redundancy and super-agglutination of the fluids, causing inflamed eyes, swelled legs, turbid urine, which, if long neglected, seldom fail to terminate in the most fatal diseases. This purgative is superior to all for producing a fine glossy coat and high spirits. The salts seem to act upon the contents of the intestines, and the animal humours, by a certain peculiar power of dissolution, rather than by the accustomed stimulus of other purgatives; and if they do not always produce those liquid ejections from the horse, which result from the more powerful cathartics, they bring away an equal quantity of dung in a softened state. Horses, which have had their regular aloetic purges, but which, from hardiness of constitution, or defect of exercise, have become gross and pursive, and at a time, perhaps, when brisk services may be required of them, are speedily and safely put in order, by a short course of salined water.

It hath been hitherto, the general custom to exclude draft cattle from the benefits of cleansing and evacuation, by cathartic medicines, but, without the appearance of reason; for, from the general gross and surfeiting nature of their food, and the slowness of their motions, encouraging a glutinous, sluggish, and viscid state of the blood, none of the species are more in need of artificial helps, in a defect of which, with the intent of prevention, originate those frequent fits of the gripes, staggers, blindness, pursiveness and grease, to which stuffed and pampered cart and coach-horses are so notoriously subject. Salts are particularly useful with this sort of horses, and the load of dung and urine discharged by them from the body of a dray horse, has been so great, that it has been wondered how the intestines of the animal could possibly contain it.

The complaints of private families in the country, who keep a pair of horses, are, that they are a perpetual source of trouble and uneasiness; they are either foot foundered, heavy-eyed, greasy, or so pursive and unwieldy, as to be covered with sweat upon the least extraordinary exercise. Much standing within, and strong nourishment, must, of necessity, produce all this, even as his master and mistress acquire the gout upon the same principle. Such horses should have, at least, four or five doses of physic in a year, with alterants in the interim, if required. Their feet should be well soaked in water twice a day; they should stand loose in their stalls, and, have a daily walk of some hours.

The signs of a want of purging physic, from the common cause, over repletion, are so obvious, that it is needless to repeat them; but occasionally, although rarely, a lean and hide-bound appearance may indicate the same want; the digestion may have been injured, and the appetite depraved, by unwholesome food; the intestines may be choaked up with slime and filth, the proper nidus of worms: horses in such a state acquire strength, and thrive much after physic. But it is necessary to be very cautious in purging weak and delicate horses; in fact, it had always better be referred to men of professional knowledge. An inflammatory state of the blood always forbids purging; it is absolutely necessary to wait until the fever shall have ceased. In case of much flesh, excessive fulness, heat, and costiveness, begin to reduce the subject two or three days previous to the exhibition of a dose of physic; warm bran mashes, salined water, and walking exercise, will, in general, be found fully effectual without bleeding, which ever ought to be reserved for cases of absolute necessity. There are horses of habits so naturally costive, that a double dose will scarce have any material effect upon them; no rash attempts should ever be made upon these with drastic purges, which may be suddenly attended with fatal effects. They are best treated with a course of salts; or alteratives, which have a gradual operation, or laxative clysters may be exhibited two or three days previous to a dose of physic. The old maxim ought not to be forgot, to forbear purging in extremes of heat or cold, or in wet weather.

Purges are seldom given in a liquid form, but in balls, to hide the ill taste; these are of an oblong shape, and the size of a pullet's egg. It may be of dangerous consequence to attempt to deliver them too large, particularly those balls which are refined, and neatly made up *secundem artem;* you should always form a purge into two balls, frequently into three, merely rolling the composition up in a piece of paper, twisted at each end, and smearing it with sweet oil.

The horse being prepared the day before, by a bran mash.

mash or two, should have his physic in the morning, fasting, between five and eight, as the season may suit. Should the animal be very gross, foul, and full of blood, and any danger be apprehended from his state of body, a pretty large mash of bran, without corn, may be given him in the middle of the preceding day, only a small lock of hay at night, a small bran mash early in the morning, and his physic two hours after. Mashes also are of great service in the following case: A horse in a very unfit state for a journey, from having been kept high without exercise, may yet be wanted in a few days, a time too short to attempt to prepare him by physic; give a large bran or pollard mash at night, instead of corn, with little or no hay, and two hours walking exercise in the morning fasting, for four days, and white water if the horse will take it; this will make him empty himself very much, amend his appetite and wind, and increase his powers of performance.

In the delivery of a ball, no iron instrument should ever be made use of, since it is a rough and terrifying practice. The tongue of the horse being drawn, and held out of his mouth on the off side, the operator receiving the ball or roll from a by-stander, places it lengthwise between his fingers and thumb, which being stretched out, he delivers it with a moderate jirk over the root of the tongue; when letting go the tongue, and placing his hand under the jaw, he elevates the head, in order to watch the passage of the ball down the gullet. If it has been plainly distinguished passing down, another ball may be immediately given, should one remain. But some horses will retain them obstinately a considerable time, in which case a little water may be given, or even poured down with the horn, the swallowing which ascertains the situation of the ball. In giving a drink, the horse's head should be held up with a forked stick with blunt points, kept for that purpose, but by no means with an iron fork, for fear of accident; a noose to receive the fork being placed in the mouth over the tushes. The account of administering physic in Mr. TAPLIN's *Compendium*, is one of the most rational and useful any where to be found, and which bears the indubitable marks of sound judgment, and practical experience.

Every groom should be provided with a good horn, narrow in the spout, and wide in the belly, which will hold full half a pint; and much care should be taken that too large a quantity be not discharged into the horse's gullet at once, or too suddenly, or that one godown do not follow the other too hastily; but sick or well, he ought in the case of giving medicine, to be turned about with the greatest care, and treated with the utmost tenderness and patience.

Immediately after the horse shall have swallowed the dose, you may allow him to take two or three godowns of soft water, blood warm, and to eat a lock of hay. Small quantities at a time of clean picked hay may be given him throughout the day, and two or three mashes of sweet bran and ground oats, which is the proper diet whilst the physic is in operation. Should it be a laxative drench of the neutral salts, and other articles of quick operation, his purging may begin in less than twelve hours; but an aloetic purge, the slowest of all others, will lie in his body double the time: beginning to operate the following morning, its effects may continue twelve, twenty-four, thirty hours, or upwards, according to the power and quality of the medicine, and the existing state of the horse's body. Good aloes, rhubarb, or salts, the quantities being judiciously apportioned, and the body of the patient in a fit state for their reception, never gripe or nauseate. Cold water should never be allowed. Instances may be produced of horses, which had taken coarse plantation aloes, made up with a large quantity of common resin, and being killed outright by a plentiful drink of cold water, the body swelling enormously, and appearing as if the animal had been destroyed by poison. It is a property of good aloes, to increase the appetite and promote digestion; the aloe is also an excellent diuretic. The method of taking aloes is to inclose it in pellets of chewed bread, by which method the pill has no taste of the aloetic bitter; a single pill or two will perhaps serve for common occasions.

A horse which usually stands unclothed, should have a sheet thrown over him during physic. The habitual temperature of air in the stable may be preserved, with the caution of obviating all partial currents, more particularly should the weather turn out cold or wet. In case of wet, the horse should not stir into the open air, or where rain may be blown upon him. For want of better convenience, turn him about, and walk him up and down the stable, if necessary, to quicken the purge. If the weather permit, put on his hood, and take him out two or three times in the day, half an hour each time. The purge operating freely, only walk him; if otherwise, let him trot a little, but gently, and at his ease, the rider by no means hurrying, but allowing him his own time to stop during his ejections. In case of a cold northerly wind, the less he be kept out the better; and additional clothing will then be necessary. The ceremony ends upon the physic being set, namely, when the excrement shall have reassumed its habitual or natural consistence. After the setting, from a week to a fortnight of walking, or very gentle exercise, ought to precede labour. No horse will bear more than one regular dose in seven days.

The *Regular Course of Salts*, for a hack or hunter, is from twenty to twenty-four ounces the dose, the three doses taking up somewhat more than the usual time. Should the weather be fine, and no danger of wet, the horse may be moderately ridden, during this physic, but no risks of taking cold ought to be incurred, nor any cold water allowed. The method of giving salts, is to prepare the horse with two or three warm bran and corn mashes, and to keep him without water, until he become thoroughly in need of it; then take a pail-full, blood-warm, and infuse four ounces of salts, previously and thoroughly dissolved, in half a pint of boiling water; should the horse refuse, have patience, and drought will in no great length of time ensure his compliance. Repeat this as convenience may serve, until the dose shall be complete, which may be in two days at farthest. It is necessary to observe, that the salts should be kept carefully corked up in wide mouthed bottles; for although every one knows, that upon exposure

to

to the air, they gradually precipitate into a powder, yet all are not aware that thereby about half their efficacy is loſt: again, if inſtead of properly diſſolving the ſalts, as directed, they are careleſsly thrown into the pail of water, to melt at leiſure, (which nine grooms out of ten to ſave trouble would do) they will, great part of them, remain undiſſolved at the bottom of the pail, or again ſhoot into cryſtals from the coldneſs of the water, and be thrown away. Not only ſalts, but aloes, jalap, rhubarb, and other drugs, ought to be carefully preſerved from expoſure to the air. For very large, or very groſs horſes, the doſe of ſalts muſt conſequently be increaſed, and the quantity will be beſt regulated by the experienced operation. It is recommended that GLAUBER's ſalts be uſed, in preference to any *Lymington*, or other cheap ſubſtitute, to be had at the druggiſts. Very frequently, a ſingle doſe will put a hackney into excellent condition.

A Cooling Purgative Drench, of quick operation. Take the infuſion of four ounces of cremor tartar, in one pint or more of boiling water, which has ſtood three hours or longer, and been frequently ſtirred; ſtrain it fine, and mix therewith, or diſſolve therein, upon the fire, ſix ounces of GLAUBER's ſalts; add from four drachms to one ounce of jalap, according to the ſtrength required; a gill of ſtrong peppermint; and a ſufficient quantity of warm gruel, or ale, well ſweetened with honey, or treacle. Linitive electuary and ſyrup of buckthorn, may occaſionally be joined.

The Aloetic Purge, for a hack, hunter, or race-horſe, from LAWRENCE. The fineſt ſuccotrine aloes, well powdered, from twelve to fourteen drachms; cremor tartar, an ounce or two; ginger, freſh and finely grated, a tea-ſpoon full; fine ſalad oil, a table-ſpoon full; make the maſs with treacle, or ſyrup of buckthorn, and ſifted oat flour, into two or three balls. This form you may frequently vary and render more quick, by ſubduction of the quantity of aloes, and addition of jalap inſtead: thus, aloes, twelve drachms; jalap, two drachms. Or, aloes, ten drachms; jalap, half an ounce.

The Aloetic Purge, from GIBSON. Succotrine aloes, ten drachms; jalap and ſalt of tartar, of each two drachms; grated ginger, one drachm; chemical oil of anniſeeds, thirty drops; ſyrup of buckthorn, enough to form the ball, which roll in liquorice powder or flour. If neceſſary to quicken, add a drachm or two to the quantity of jalap.

In dropſical, or other caſes, where draſtics may be abſolutely neceſſary, nothing is more ſafe and effectual than a ſmall addition of ſcammony, in its pure and natural ſtate, to ſuccotrine aloes, with a ſufficient guard of ſalts, ſoap, or oil; but ſuch potent articles require medical knowledge and judgment in the preſcriber.

The Rhubarb Purge, from GIBSON. Fineſt ſuccotrine aloes one ounce; Turkey-rhubarb, in powder, half an ounce; ginger, grated, one drachm; make the ball with ſyrup of roſes. This is highly recommended for delicate conſtitutions and poor feeders. Or,

Fine aloes, one ounce and two drachms; myrrh, fine powder, half an ounce; ſaffron, and freſh jalap powder, each one drachm; make a ſtiff ball with ſyrup of roſes, or marſhmallows; add a ſmall tea-ſpoon full of rectified oil of amber, roll the ball in liquorice powder.

Purge or Scouring, for a groſs and foul coach or cart-horſe. Succotrine aloes, one ounce; jalap, one ounce; myrrh, finely powdered, half an ounce; cremor tartar, one or two ounces; Caſtile ſoap, half an ounce; ginger, finely grated, two tea-ſpoons full; beſt ſalad oil, one large ſpoon full; make three balls for one doſe, with ſyrup of buckthorn and liquorice powder, or flour.

Mercurial Purge, for ditto. Add to the above, two drachms of calomel, or, if the conſtitution and habit ſhould require it, half an ounce.

Mild Mercurial Purge. Add two drachms of calomel to the aloetic purge of GIBSON.

Should a purge not operate at a proper time, either from the badneſs of the drugs, or cold taken, the horſe will hang down his head and refuſe food, appear ſwelled, heave in his flanks, and frequently throw up his tail without ability to evacuate. In a ſlight caſe of this kind, give the ſize of a pullet's egg of cordial ball, in three pints of warm gruel, and repeat it at night and the following morning; in the interim give ſalined water, blood warm, made as before directed, *i. e.* the ſolution of four ounces of GLAUBER's ſalts, to a pail, or three gallons, of ſoft water. Walking exerciſe, if fine weather, well clothed, the horſe not being ridden. Or, ſhould the caſe be more ſerious, and the horſe much ſwelled or griped, take balſam of *Peru* and capivi, of each half an ounce, incorporate them with the yolk of a new laid egg; camphor, one drachm, diſſolved in a ſmall quantity of *Hollands* gin, or other ſpirit, juniper berries and anniſeed, powdered, half an ounce each; unrectified oil of amber, two drachms; make a ball with ſyrup of marſhmallows, and roll in liquorice powder. Give plenty of warm gruel and water. If the additional aid of a clyſter ſhould be needed, uſe the following; thin water gruel three quarts, ſweetened with ſix ounces of coarſe ſugar, and well mixed with ſix ounces of ſallad, or linſeed oil: if eaſily to be procured, inſtead of water gruel, make uſe of a decoction of mallows, pellitory, mercury, chamomile, or ſuch as can be obtained, each a large handful, with bay-berries, and ſweet fennel-ſeeds, each one ounce, in a gallon of water, boiled to three quarts. As the horſe recovers, give a few malt maſhes.

In caſe of *ſuper-purgation*, or exceſſive working of the phyſic, the very common conſequence of the uſe of plantation aloes, or a too powerful mercurial doſe, give the following, a quart at a time, with the horn, in the courſe of the day: ſimmer gum arabic and tragacanth, each four ounces; juniper berries and carraway-ſeeds, bruiſed, three ounces; ginger, half an ounce, in five quarts of water, until the gum ſhall be diſſolved. Gruel made of boiled rice is excellent in this intention, given either with the horn, or in the horſe's drink, and the rice by way of maſh. Or, cordial ball in warm ale. Or, prepare a decoction of chamomile, wormwood, freſh anniſeeds, and ſaffron; to three quarters of a pint of this, warm, add a pint of fine old port wine, in which has been diſſolved one ounce of diaſcordium, to be given every three or four hours. The horſe

horse continuing to purge, and to eject even the very mucus and lining of his bowels, the foregoing remedies must be persevered in, with the additional help of restringent and nutritive clysters.

The Restringent Clyster. Either pomegranate or oak bark, two ounces; red roses, green or dry, a handful or two; balustines, half an ounce; boil in two quarts of water to one, pour off clear, and dissolve in the decoction four ounces of diascordium. To be repeated. Or, the *Starch Clyster*, from Mr. CLARKE. Starch jelly, or infusion of linseed, one pint; liquid laudanum, one ounce, or two table-spoons full; if inflammation be apprehended, substitute for the laudanum, twenty or thirty grains of opium, well rubbed and dissolved: the quantity, one pint, rather too small. Broths are used in this case, and flour or rice milk, strained, but oils are too relaxing; yet, the coats of the intestines being abraded, BARTLET recommends mutton suet boiled in milk, both as a clyster and drench, one pint every three hours. Suet, four pounds to one quart of milk. Should the case have been so dangerous, that the horse remains weak, and a restorative course be required; persevere in the following a few weeks. Loose stable, use of a field or yard by day, where he may be kept from water. Make a strong decoction or infusion of oak-bark, gentian, carduus benedictus, or the male sow-thistle, and *Roman* wormwood, and keep it bottled for use; give half a pint to a pint in every pail of water, cold. Frequent rice and malt mashes, cordial ball in ale. Ox, or sheep's gall, half a pint in ale, milk warm, twice a day.

The following observations on clysters, is learned from the respectable authorities of GIBSON and CLARKE, previous to experience of their truth. A syringe should never be used, as the discharge alarms the horse. The proper apparatus is a pipe and bag. To a large ox-bladder fasten a pipe of the length of fourteen or fifteen inches, made of box, or any wood susceptible of a smooth polish; in size, about an inch and a half diameter next the bag, and of a gradual taper to the extremity, where the thickness ought suddenly to increase, and be rounded at the point; let the perforation of the pipe be large enough to admit the end of a common funnel, for the purpose of pouring the liquor into the bag; certain ivory pipes in use, are apt to wound the gut. Place the horse, if convenient, with his hinder quarters upon the highest ground. In case of hardened balls of excrement, always back-rake, with the smallest hand to be procured, well oiled, and nails pared, previous to the administration of a clyster. Mr. TAPLIN, although apparently of great skill in all matters of medical application, has very much failed, in decrying the advantages of thus extracting the excrement, frequently a matter of the utmost necessity in both brute and human bodies; in the latter, it is usually performed with a silver instrument, formed like a marrow spoon. It must surely be a great point gained, where we can make direct application to the seat of the complaint; as, for instance, to the blood-vessels by phlebotomy, in a state of plethora and inflammation. In a laxative clyster, the quantity may be as much as three quarts; but in those of a restringent, anodyne, or nutritious kind, which are to be retained, from a pint to a quart is fully sufficient. Let your liquid, in respect of warmth, be as nearly as possible of the common temperature of blood, which being discharged with all due caution against alarm, hold down the tail a few minutes. Clysters thus carefully given, create so little uneasiness to a horse, that they may be repeated very often, if necessary, without much trouble. It will happen in cholics, that horses drop, frequently, dribblets of excrement, apparently loose; at the same time the colon may be loaded with scybala, or hardened dung-balls. The grooms and farriers, like troublesome and conceited nurses, judging merely from appearances, and habitually sparing of labour, and jealous of novelty, decry the use of clysters as superfluous, but on their repetition, are surprized at the quantity and state of the discharge. The veterinarian and jockey, in all cases, may hear the groom, but must consult the reason of the thing. I repeat it after St. BEL, stable-people, in general, cannot be trusted even with a relation of facts; their obstinacy and conceit ever holds an exact pace with their ignorance. Clysters are of immense service, both in the intent of relaxing, astringing, and comforting the intestines; and the animal body may be preserved alive, and nourished by these alone, for a considerable period, when it may be impracticable to receive any sustenance in the regular way.

The Common Clyster. Two or three quarts of thin gruel, salad oil half a pint, coarse sugar, or common salt, six ounces. To render it more emollient, a decoction of marsh-mallows, ground-ivy, chamomile, and fennel seeds, may be substituted to the gruel.

Laxative Clyster, add to the above eight ounces of GLAUBER's salts. Or, an infusion of two ounces senna in boiling water, and four ounces syrup of buckthorn. Or, caryocostinum, one ounce. Or, bitter apple half an ounce. Bay berries and anniseeds bruised, one handful each; salt of tartar half an ounce, syrup of buckthorn four ounces. The bitter apple, berries and seed, should be boiled a quarter of an hour. Or, instead of the bitter apple, an ounce or two of tincture of jalap.

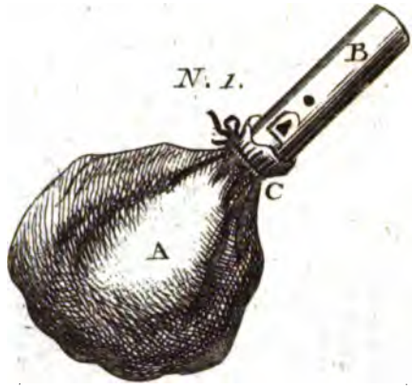
Nutritive Clysters. Thick water gruel. Or, broths made of sheep's head, trotters, or the like, but not too fat. Milk pottage. Rice-milk strained, with warm aromatic seeds if necessary.

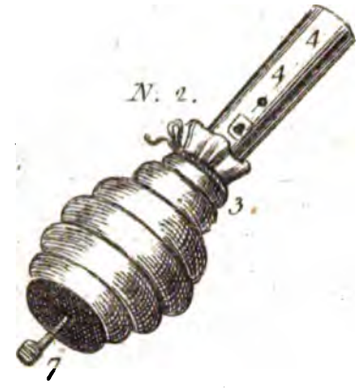
Diuretic Clysters. Soap four ounces, dissolved in two quarts of warm water, salt one handful. Or, one ounce of Castile-soap, two quarts of water, Venice-turpentine two ounces, well beat with the yolks of two eggs. Or, in a stranguary, to be repeated: Venice turpentine from two to four ounces, beat up with eggs; add by degrees, two quarts of decoction of marsh mallows, parsley and ground ivy, or either, in which from two to four ounces of nitre has been dissolved; oil half a pint to one pint, and occasionally one ounce of BATES's anodyne balsam.

The Cordial Ball was first introduced by MARKHAM, who stiles it the "mirror and master of all medicines," and pretends it will cure all inward diseases. Every writer, almost, has made some variation from the original, affecting to have his own cordial ball. Mr. TAPLIN, has not been fortunate in his attempted improvement of Dr. BRACKEN's ball.

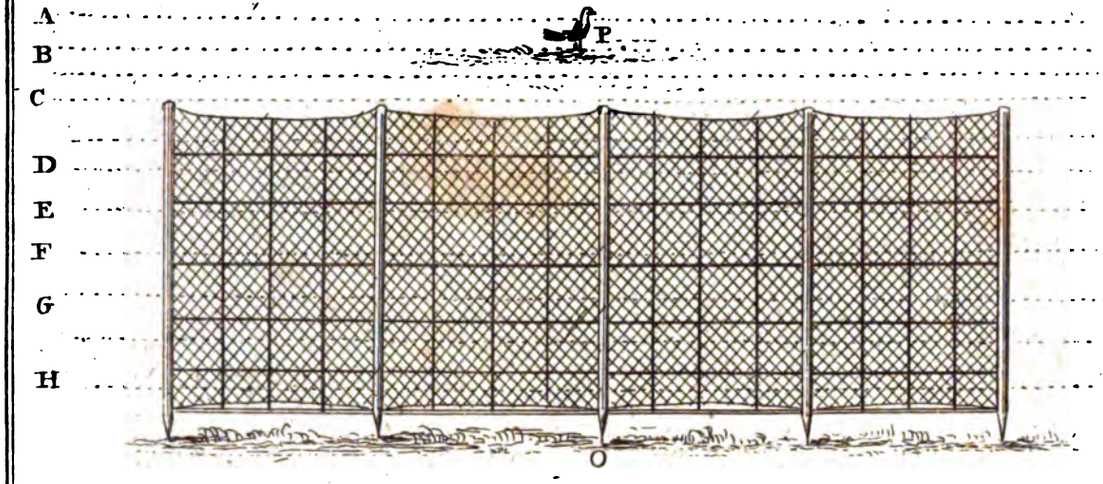
Bracken's

Quails





The Net called a Hallier



BRACKEY's *ball*. Anniſeeds, carraway-ſeeds, and greater cardamoms, fine powder, of each an ounce; flour of brimſtone, two ounces; turmeric in fine powder, one ounce and a half; ſaffron in powder, two drachms; ſugar candy, four ounces; Spaniſh juice diſſolved in hyſſop water, two ounces; oil of anniſeed, half an ounce; liquorice powder, one ounce and a half; wheat flower, a ſufficient quantity to make it into a ſtiff paſte, by beating all the ingredients well in a marble, not a braſs mortar. This is the common cordial ball, and I believe deſervedly moſt in repute.

In the firſt place, care ought to be taken that the ſeeds be freſh and good, and by no means old ſhopkeepers, and that the oil of anniſeed be genuine, inſtead of one half oil of almonds; farther, that the maſs be kept in a bladder, or a gallipot, well ſecured from air or damp; and laſtly, out of the reach of two-legged depredators.

The *malt-maſh* from MARKHAM. Upon a peck of ground malt, pour a gallon and a half of boiling water, ſtir frequently; in about half an hour the liquor will be ſweet, and may be given to a horſe milk warm: this is very nouriſhing, either by itſelf, or mixed with gruel of rice, or oatmeal.

Alterative forms. The intent of alterants is gradually to remove chronic, or obſtructions of long ſtanding, which would not ſo readily give way to the briſk and tranſient effects of a purge; by thinning, purifying, and accelerating the motions of animal fluids. The chief conſiderations in the exhibition of this claſs of medicines are, that the more powerful ſpecies be not reſorted to, unleſs the humours of the animal be in a corrupted or depraved ſtate, that the doſes be very moderate and continued a conſiderable time, and that the powders be reduced as fine as poſſible; to a pinch of ſnuff. Large doſes purge, and the medicine paſſes too quickly; their frequency debilitates the ſtomach, and depreſſes the ſpirits; if the powder be groſs, inſtead of entering the lacteals and paſſing thence into the blood, it is carried through the inteſtines unchanged. I have ſeen rhubarb ejected from the bowels of an infant, the ſecond or third day, in the ſame crude ſtate as when given.

Mild Alterative. Flour of brimſtone, and cremor tartar, equal quantities; with theſe mix canella alba, a drachm of the latter to an ounce. The doſe, half an ounce to one ounce twice a day, either given in a ball with treacle, on an empty ſtomach (the moſt effectual way), or mixed with the corn, being firſt of all well ſtirred into a little wetted bran.

Add gum guaiacum finely powdered, and turmeric, equal quantities with the above. Mix well. This ſucceeds well with delicate conſtitutions.

Pound the fineſt antimony, that is, large, clear, and ſhining, like poliſhed ſteel, to an impalpable powder, mix with equal quantity of powdered guaiacum. Six drachms to one ounce per day.

Antimonial Æthiops, four to ſix drachms every night for a fortnight, then omit a week, afterwards repeat for another fortnight. It is made as follows: the beſt antimony as before, twelve ounces; crude mercury, ſixteen ounces; brimſtone, eight ounces; grind them together to an impalpable powder. This medicine has great effect in farcy, inveterate mange, or obſtinate dry coughs.

PURLIEU, all that ground near any foreſt, which being anciently made foreſt, is afterwards, by perambulations, ſeparated again from the ſame, and freed from that ſervitude which was formerly laid upon it.

PURLIEU-MAN, one that has land within the purlieu, and forty ſhillings a year freehold; upon which account he is allowed to hunt or courſe in his own purlieu, with certain limitations.

PURSE-NET, a net uſed for taking both hares and rabbits at certain times, and three or four dozen of them are ſufficient to lay over their holes: they are to be faſtened by tying ſtrings to ſticks thruſt into the earth, otherwiſe when the rabbits bolt out, they will run away and get out of the nets; but when the nets are fixed, and all things in order, there muſt be one or two to lie cloſe to ſee what game comes home, while, in the mean time, you beat the buſhes to force them homewards.

Another way to take rabbits with theſe nets is, at their coming out of their parraces; and they ſhould be ſecreted in this manner:

Firſt hunt them up and down to force them all in, then put in a ferret with a bell about her neck, which gives the rabbit notice of her coming, who, endeavouring to avoid her, will bolt out into the purſe-net, from whence you muſt immediately take the purſe-net before the ferret ſeizes her; and when the ferret comes out of the burrows, put her in again; but remember to cope her mouth, that is, tie her chaps with fine packthread, which will hinder her from ſeizing the rabbit and ſucking her blood.

PURSINESS IN HORSES, is a ſhortneſs of breath, either natural or accidental. The natural is when the horſe is cock throppled; for that his thropple or windpipe being ſo long, he is not able to draw his breath in and out with ſo much eaſe as other horſes do which are looſe throppled, becauſe the wind-pipe being too ſtraight, that ſhould convey the breath to the lungs, and vent it again at the noſe, makes him pant and fetch his breath ſhort; and in like manner when his pipe is filled with too much fat, or other phlegmatic ſtuff, which ſuffocates him, and makes his lungs labour the more.

Purſineſs accidental is ſometimes cauſed by a horſe's being hard ridden after a full ſtomach, or preſently after drinking, which cauſes phlegmatic humours to diſtil out of the head into the wind-pipe, and ſo fall upon the lungs, where they ſettle and congeal.

It alſo proceeds from heats and colds, *&c.* cauſes dulleſs and heavineſs in travelling, makes him ſweat much, and ready to fall down upon every ſtrain.

For the cure: pound anniſeeds, liquorice, and ſugar-candy, to a fine powder, and put four ſpoonfuls into a pint of white wine; brew them well, and mix with them half a pint of ſalad oil. Give this to the horſe ever after a travel, and a day before he ſets out on a journey. *See* ASTHMA AND BROKEN-WIND.

PUT; it is uſed for the breaking or managing of a horſe; as put your horſe to corvets, put him upon caprioles.

To put a horse upon his haunches, is to make him bend them in galloping in the manage, or upon a stop. *See* HAUNCHES.

To put a horse to the walk, trot, or gallop, is to make him walk, trot, or gallop.

PUTTOCK, a kind of long-winged kite, a bird of prey.

PYE-BALD HORSE, is one that has white spots upon a coat of another colour.

Thus there are pye-bald bays, pye-bald sorrels, and pye-bald blacks, and so of the rest.

PYROET; (in Horsemanship) some are of one tread or pistes, some of two.

Those of one tread are otherwise called, *Pirouettes de la tete a la queue*, which are entire and very narrow turns made by the horse upon one tread, and almost in one time, in such a manner that his head is placed where his tail was, without putting out his haunches.

To make horses take this pyroet with more facility, they use in the manage to put them to five or six of them all running, without stirring off the spot.

In duels they are of use to gain the enemy's croup.

Pyroets of two pistes or treads, are turns of two treads upon a small compass of ground, almost of the length of the horse.

QUAILS are the least of all the birds of the gallinaceous kind. They have, however, the genius of the cock, and may be bred to fight like our game cocks. This was an old custom among the Athenians, and is still kept up in some parts of Italy, and in Asia. Quails are birds of passage, some entirely quitting our island, others shifting their quarters from one country to another, dwelling in corn-fields, or meadows.—Quails begin to sing in *April;* they make their nests on the ground, and sit in the month of *May*, at which time you must not disturb them: you may know the hen by her slender neck, and that she is not black under the chin, but of the colour of baked earth, and so up to the head, her breast and belly are almost white, her back and wings of a dark yellow colour; but the head, neck, back, tail, and wings of the cock, are almost black: his beak is also black and feet shining.

Quails are to be taken by calls, while they are in their wooing-times, which is from *April* till *August;* the quail will call at sun-rising, about nine o'clock, about twelve, about three in the afternoon, and at sun-set. The notes of the cock differ much from the hen, so that you must be expert in both, if you intend to do any good in taking them; and when you hear the cock call, answer in the hen's note; and so on the contrary, answer the hen in the cock's note and they will both come to you, that you may cast your net over and take them.

If it be a single cock quail, he will come at the first call, but if he hath a hen with him, he will not forsake her: sometimes you shall only hear one to answer your call, yet three or four will come to your net, so that you need not make too much haste when you find one entangled, for some more may be taken in a short time.

Quails are neat cleanly birds, and will not much run into dews or wet places, but chuse rather to fly, that they may not dirty themselves; you must therefore at such times place yourself as near your nets as possible, and if by accident the quail passes by one end of the net, call her back again, and she will soon come to your net.

The form of the call and how to make them, are described Plate XII. *viz.* the first A, is made of a small leather purse, about two fingers wide, and four long, in shape much like a pear; it must be stuffed half full of horse-hair; place in the end a small whistle or device, marked C, made of a bone of a cat's, hare's, or coney's leg, or rather of a wing of an old hern, which must be about three fingers long, and the end C, must be formed like a flagelet with a little soft wax; put also in a little to close up the end B, which open a little with a pin, to cause it to give the clearer and more distinct sound: fasten this pipe in your purse, and then to make it speak, hold it full in the palm of your left-hand, putting one of your fingers over the top of the wax; you must shake on the place marked A, with the hinder part of your right thumb, and so imitate the call of the hen-quail.

The form of the other quail-call, described Plate XII. Fig. 2. must be four fingers long, and above an inch thick, made of a piece of wire turned round, as if it was curled; it must be covered over with leather, and one end thereof closed up with a piece of flat wood, marked 2; about the middle you must have a small thread, or leather strap 7, wherewith you may hold it, so as to use it with one hand; and at the other end, place just such a pipe as is described before in making up the first call.

Now for the calling with it, hold the strap or piece of leather with your left-hand, close by the piece of wood marked 2, and with your right-hand hold the pipe, just where it is joined to the flagelet, marked 3, and make the same noise as the hen does when she calls the cock.

The net commonly used, is called a hallier, or bramble-net, which is managed as in the following figure.

If you know where the cock is alone, get within fifteen paces: suppose the pricked lines, marked with the letters A, B, C, D, E, F, G, H, where the borders of the corn-field, and that the quail should be at the letter P, spread your net on the top of the ridge adjoining to the corn, and pitch your hallier, and so the bird running cross the corn, may get into the net without perceiving it; then draw back into the bottom of the third or fourth line O, where you most stoop and hide yourself over-against the middle of the net, in order to call the quail.

QUARTER; to work from quarter to quarter, is to ride a horse three times in end, upon the first of the four lines of a square; then changing your hand, and riding him three times upon a second; at the third line changing your hand, and so passing to the third and fourth, observing the same order.

A False QUARTER, is when the hoof has a kind of cleft occasioned by a horse's casting his quarter, and getting a new one, for then the horn beginning to grow, is uneven and ugly, as also bigger and softer than the rest of the hoof; and such feet should be shod with half panton shoes; but if the cleft be considerable, and take up

up a quarter part of the hoof, the horse will not be serviceable, and is not worth buying.

QUARTER BEHIND, is when a horse has the quarters of his hind feet strong; that is to say, the horn thick, and so capable of admitting a good gripe by the nails.

When a horse's quarters or feet are wasted and shrunk: for the cure: raze the whole foot with a red hot knife, making large razes of the depth of a crown piece, from the hair to the shoe: and avoiding the coronet, then apply a proper poultice, and charge the foot with a *remolade*. *See* REMOLADE POULTICE *for the hoof-bound.*

QUARTERS OF A SADDLE, are the pieces of leather, or stuff, made fast to the lower part of the sides of the saddle, and hanging down below the saddle.

QUARTERS OF A HORSE, fore-quarters, and hind-quarters; the fore-quarters are the shoulders and the fore-legs; the hind-quarters, are the hips and the legs behind.

QUARTERS OF A HORSE'S FOOT, are the sides of the coffin, comprehended between the toe and the heel on one side, and the other of the foot: the inner-quarters are those opposite to one another, facing from one foot to the other; those are always weaker than the outside quarters, which lie on the external sides of the coffin.

QUARTER-CAST; a horse is said to cast his quarters, when for any disorder in his coffin, we are obliged to cut one of the quarters off the hooff, and when the hoof is thus cut, it grows and comes on a new.

QUITTOR-BONE, a hard round swelling upon the coronet, between a horse's heel and the quarter, which most commonly grows on the inside of the foot.

It is occasioned many ways, sometimes by some bruise, stub, prick of a nail, or the like, which being neglected, will imposthumate, and break out about the hoof: now and then it comes from evil humours, which descend down to that part.

Quittor.

A quittor is an ulcer formed between the hair and the hoof, most frequently on the inside quarter. They are caused by bruises, or by neglecting to clean away sand, gravel, *&c.* that lodges in this part.

If it is superficial, the cure is easily performed, by bathing the swelling once a day with spirit of wine, and applying to the ulcer a pledget of the ointment as directed for sand-cracks, which see.

If the matter sinks under the hoof, part of it must be taken off, or the ulcer can never be healed; and the success in this case depends very much on the dexterity of the operator, and ease to the horse, with which the piece of the hoof is divided and taken away.

Sometimes the matter runs under the quarter of the hoof, in which case the quarter must be removed: in this case, when the quarter grows again, it leaves a large seam called a false quarter, which weakens the foot and is never fairly cured.

If the coffin bone be affected with the matter, the opening must be properly enlarged; all that is decayed must be taken away with a knife, for that is the easiest, and when it is used with skill, is the safest method; after which dress the wound with pledgets of the digestive ointment, with or without the precipitate, as directed for sand-cracks, according as circumstances may indicate.

If there is much pain or inflammation, a poultice may be applied over the dressing, including the whole of the diseased part; but it should be taken off and warmed again, three or four times a-day.

During the cure, the horse should run at liberty, and not be used for any kind of work. *See* FEET OF A HORSE.

RABBIT, a well-known animal of the hare-kind, with a short tail, and naked ears. In the wild state the colour of the fur is brown; but, in a tame state, it varies to a black, pied, and quite white; the eyes are of a fine red. In their wild state they inhabit the temperate and hot parts of *Europe*, and the hottest parts of *Asia* and *Africa*. The female, or doe rabbit, goes with young thirty days, and then she kindles; and if she take not buck presently she loses her month, or at least a fornight, and often kills her young and eats them. In *England* they begin to breed at a year old, but in some places much sooner; and they continue breeding very fast from the time when they begin, four, five, six, or seven times a year being common with them. The female sometimes brings eight young ones at a time. Supposing this to happen regularly for four years, the number of rabbits from a single pair will amount to 1,274,840. By this account we might justly apprehend being overstocked with these animals: but a great number of enemies prevents their increase; not only men, but hawks and beasts of prey making dreadful havock among them. Notwithstanding all these different enemies, however, we are told by PLINY and STRABO, that they once proved such a nuisance to the inhabitants of the *Balearic* islands, that they were obliged to implore the assistance of a military force from AUGUSTUS in order to exterminate them. The does cannot suckle their young till they have been at buck again; this therefore is to be done presently, else there is a fortnight lost of the time for the next brood, and the present brood also probably lost. When the buck goes to the doe, he always first beats and stamps very hard with his feet, and when he has copulated with her he falls backward, and lies, as it were, in a trance; in this state it is easy to take him, but he soon recovers from it. The buck-rabbit, like our boar-cats, will kill the young ones, if he can get at them; and the does in the warrens prevent this, by covering their stocks, or nests, with gravel or earth, which they close so artificially up with the hinder part of their bodies, that it is hard to find them out. They never suckle the young ones at any other time than early in the morning, and late at night, and always for eight or ten days, close up the hole at the mouth of the nest, in this careful manner when they go out. After this they begin to leave a small opening, which they increase by degrees, till at length, when they are about three weeks old, the mouth of the whole is left wholly open, that they

they may go out; for they are at that time grown big enough to take care of themselves, and to feed on grass. When the young ones come to the mouth of the hole, and to eat such herbs as the mother brings to them, the father seems to know them: he takes them betwixt his paws, smooths their hair, and caresses them with great fondness. People who keep rabbits tame for profit, breed them in hutches; but these must be kept very neat and clean, else they will be always subject to diseases. Care must be taken also to keep the bucks and does apart till the latter have just kindled; then they are to be turned to the bucks again, and to remain till they shun and run from them. The general direction for choosing of tame rabbits is, to pick the largest and fairest; but the breeder should remember, that the skins of the silver-haired ones sell better than any other. The food of the tame rabbits may be cole-wort and cabbage leaves, carrots, parsnips, apple-rinds, green corn, and vetches, in the time of the year; also vine-leaves, grass, fruits, oats and oatmeal, milk-thistles, sow-thistles, and the like; but with these moist foods, they must always have a proportionable quantity of the dry foods, as hay, bread, oats, bran, and the like, otherwise they will grow pot-bellied, and die. Bran and grains mixed together have been also found to be very good food. In winter they will eat hay, oats, and chaff, and these may be given three times a day; but when they eat green things, it must be observed, that they are not to drink at all, for it would throw them into a dropsy. At all other times a very little drink serves their turn, but that must always be fresh. When any green herbs or grass are cut for their food, care must be taken that there is no hemlock among it; for though they will eat that greedily among other things, when offered to them, yet it is sudden poison to them. Rabbits are subject to two principal infirmities. First, the rot, which is caused by giving them too large a quantity of greens, or from the giving them fresh gathered with the dew or rain hanging in drops upon them. It is excess of moisture that always causes this disease; the greens therefore are always to be given dry, and a sufficient quantity of hay, or other dry food, intermixed with them, to take up the abundant moisture of their juices. On this account the very best food that can be given them is the shortest and sweetest hay that can be got, of which one load will serve two hundred couples a year; and out of this stock of two hundred, two hundred may be eaten in the family, two hundred sold to the markets, and a sufficient number kept in case of accidents. The other general disease of these creatures is a sort of madness: this may be known by their wallowing and tumbling about with their heels upwards, and hopping in an odd manner into their boxes. This distemper is supposed to be owing to the rankness of their feeding; and the general cure is the keeping them low, and giving them the prickly herb, called tare-thistle, to eat. The general computation of males and females is, that one buck-rabbit will serve for nine does; some allow ten to one buck; but those who go beyond this always suffer for it in their breed. The testicle of a rabbit is a very good object for examining the structure of this part of generation in animals. The testicles of various animals are variously composed, but all, in general, of vessels variously rolled and folded together; and even the human testicles are of the same sort, being composed solely of rolls of vessels, without any intermediate substance, only consisting of vessels and their liquors.

The wild rabbits are to be taken either by small cur dogs, or by spaniels, bred up to the sport; and the place of hunting those who straggle from their burrows, is under close hedges or bushes, or among corn-fields and fresh pastures. The owners course them with small greyhounds; and, though they are seldom killed this way, yet they are driven back to their burrows, and are prevented from being a prey to others. The common method of taking them is by nets, called purse-nets, and by ferrets. The ferret is sent into the hole to force them out, and the purse-net being spread over the hole, takes them as they come out. The ferrets mouths must be muffled, and then the rabbit gets no harm. For the more certain taking of them, it may not be improper to pitch up a hay-net or two, at a small distance from the burrows that are intended to be hunted: thus very few of the number that are attempted will escape. The method by the dog, called the lurcher and tumbler, is also a very good one. The ferret sometimes finds a rabbit asleep, which she surprises and kills, sucks her blood, lies upon her, and sleeps there; in which case you are obliged either to kill her, or wait till she awakes, which will be often five or six hours; and therefore you must fire five or six times into the hole to awake her, upon which she will come out; but must always let her sleep an hour before you fire, or else the noise will signify nothing.

Some, who have no ferrets, smoke the rabbits out of their holes with burning brimstone and orpiment. This certainly brings them out into the nets, but then it is a very troublesome and offensive method, and is very detrimental to the place, as no rabbit will for a long time afterwards come near the burrows, which have been fumed with these stinking ingredients.

Nets to take Rabbits and Hares.

These nets must be made in the same manner as halliers, wherewith they take partridges. You have, represented in Plate VII, two simple nets made of meshes lozenge-wise; you may make them of square ones: the mesh should be an inch and half broad, made of good strong thread, and treble twisted; but if you would make meshes lozenge-wise, you must allow four-and-twenty, and three fathoms in length, and let them be well verged with long twisted thread, and of a brown colour.

But the net with square meshes will do better, in which case they allow five feet in breadth or height, and three or four fathoms in length, according to the place; and in this no verging is required.

The first of these nets is to be placed in any path or track, in any coppice or furrow; for rabbits and hares always follow the most easy and beaten path: you must take notice how the wind sits, that you may so set the net, that the creature and wind may come together; if the

the wind be ſide-ways, it may do well enough, but never if the wind blows over the net into the creature's face, for he will ſcent both it and you at a great diſtance, eſpecially a hare. Suppoſe A, B, to be the foot-path by which the game uſe to paſs, take three or four ſtaves, C, C, C, each four feet long, and about the thickneſs of one's thumb, ſharpened at the greater end, and a little crooked at the ſmaller; ſtick them in the ground, ſomewhat ſloping, as if ſo forced by the wind, in a ſtrait line, and at equal diſtances from each other; theſe muſt only hold the net from falling, but in a very ſlight manner, that if the game run againſt it, it may eaſily fall down, and ſo entangle him. Be ſure to hide yourſelf in ſome ditch or buſh, or behind ſome tree, as at D, for ſhould you be perceived, your expectation will be fruſtrated; nor ſhould you walk in the path-way by which you expect the game to come, for it will have ſome imperfect ſcent of you: when you perceive the game to be paſt you, fire a ſhot, flinging your hat at them, which will put them into ſuch a ſurprize, that they will ſpring on, and run juſt into the net; ſo you muſt be nimble to take them, leſt they break out and make their eſcape: yet this is not ſo good in windy as in calm weather.

The ſecond net is more uſed, and indeed more certain, but alſo more embarraſſing than the former. This net muſt be placed in the ſame manner as the former, in reſpect of the way and wind: obſerve the lines A, B, and C, D, denote the extremities of the path, and having two ſticks K, L, M, N, each about four feet long, and three times as thick as one's thumb, they muſt be cut exactly ſmooth at each end; and when you are upon the place, take the two ends of the packthreads which are on the ſame ſide with the net, tie them together on the ſtock of ſome tree, or a ſtake, within a foot and a half of the ground, but on the outſide of the path, as at the letter H. Do the ſame on the other ſide at I, and let the packthreads be ſo looſe in the middle, that they may bear the ſticks between them, which you are to adjuſt in the following manner:

Take the ſtick K, L, and put it on the edge of the way, at the cord or packthread L, which is at the bottom of the net; the other cord muſt be placed on the top of the ſtick at K, then go along behind the net, ſupport it with your hand, and place your ſecond ſtick M, N, juſt as you did the firſt; you ſhould endeavour to let your net lean a little towards the way by which you expect your game to come, for the game running fiercely againſt the net, will force the ſticks to give way, and ſo the nets fall upon him.

Theſe two nets are as uſeful for the taking wolves, foxes, badgers, and pole-cats, as conies and hares; but the following is only fit for the two laſt:

This net is not ſo troubleſome as either of the former, only it may be farther diſcerned; nevertheleſs it is excellent for rabbits, in ſuch foot-paths where you have ſometimes three or four couple running after one another, all which may be taken at once, for it does not fall like the two former.

You may obſerve what has been mentioned before, that the pointed lines, marked A, B, C, D, denote always the edges of the way; fix one of your ſticks at the letter E, and another in the middle F, and ſo do by the reſt; when the paſſage is quite ſhut up, withdraw to ſome buſh, or to ſome tree, as aforeſaid; but you muſt keep at a greater diſtance from this net than the other.

The right time to ſet theſe nets is at break of day, until half an hour before ſun-riſing; and from about half an hour before ſun-ſet till dark night.

RACE-HORSE, ſhould be ſomewhat long-bodied, nervous, of great mettle, very ſwift, and ſenſible of the ſpurs; he ſhould alſo be tractable, and no ways reſtive or ſkittiſh; his head ſhould be ſmall and ſlender, with wide noſtrils, and a large thropple.

He ſhould be of an *Engliſh* breed, or a *barb* of a little ſize, with a pretty large reach, his legs ſomewhat ſmall, but the back ſinews at a good diſtance from the bone; ſhort jointed, and neat ſhaped feet, for large feet are not at all fitted for this exerciſe.

He ſhould be at leaſt ſix years old, no horſe under that age having ſufficient ſtrength for a ſix mile courſe, without running the hazard of being over-ſtrained.

The next thing to be conſidered is, the limitation of time for preparing a horſe for a match; which is generally agreed by judicious horſemen, that (unleſs the match be for an extraordinay ſum) two months is ſufficient; but in this proper regard is to be had to the ſtate of the horſe's body.

If he be very fat, foul, or taken from graſs;

If he be extremely lean and poor;

If he be in good caſe, and has had moderate exerciſe.

For the firſt, you muſt take two months at leaſt, to bring him into order, for he will require much airing, great carefulneſs in heating, and diſcretion in ſcouring.

For the horſe that is very poor, get as long time as you can, and let his airings be moderate, and not before or after ſun-ſetting, feeding him liberally, but not ſo as to cloy him.

As for the horſe that is in good caſe, and which has had moderate exerciſe, a month or ſix weeks may be ſufficient.

You are alſo to conſider his particular conſtitution; if he be fat, and foul, yet of a free and waſting nature, apt quickly to conſume and loſe his fleſh; in this caſe you are not to have ſo ſtrict a hand, neither can he endure ſo violent exerciſe as if he were of a hardy diſpoſition, and would feed and be fat upon all meats and exerciſes.

Again, if he be in extreme poverty, and yet by nature very hardy, and apt ſoon to recover his fleſh, and to hold it out long; then by no means ſhould you have too tender a hand, nor forbear that exerciſe you would give a horſe of a nicer conſtitution, weak ſtomach, and free ſpirit.

As for the ordering a horſe for a race, *See* HUNTING-HORSE, MATCH, TRAINING A RACE-HORSE, *&c.*

RACK, a wooden frame made to hold hay or fodder for cattle.

RACK, a pace in which a horſe neither trots nor ambles, but ſhuffles as it were between.

The racking-pace is indeed much the ſame as the amble, only it is a ſwifter time and ſhorter tread.

RAF-

RAFFLE-NET, an implement to catch fish with both by night and day; but though the way of making this net is touched under the article Net-making, yet it will not be amiss to give you the form of it. *See* Plate XIII.

Now as to its use: you must be provided with five or six poles of sallow, or such like wood, which is strong withal, and each of nine or ten feet long, but more or less according to the depth of the water; sharpen them at the great end, the better to fix them into the ground at the bottom of the water: you must also have a paring knife, in order to cut away all the weeds, roots, stumps, boughs, or the like, which are in or near the places where you design to pitch your net, for they must be removed out of the way.

Fasten one of your poles at either end of the net, at either of the two wings, *viz.* the cord below where the lead is, unto the bigger end of the pole; and the upper cord where the cork is, to the smaller end of the pole; then in case you have no bait, contrive to get some man on the opposite side of the river with a cord in his hand, one end whereof must be fastened to one of the poles, which are fixed to the net, according to this figure of the pole.

The man having drawn over that wing, must force the great end A of the pole in the said net into the ground, at the bottom of the water C; the like must be done with the other pole of the said net, marked Z *b*, on the said water, just over against the former.

Then he must throw over one end of the cord, which fasten to the wing of the said net *y* C, when it is drawn over you must go along the whole length of the net. Your poles being ready fastened at the two former, and straining the cords of your net indifferently stiff, drive the two latter poles into the ground as you did the two first. Be sure all be well and strongly done, that the current may not force away your supporters; then with the said long pole you may spread the grass you before pared away all over the net, as well to secure it from the sight of thieves, as to give a shade to the fish, for they covet shade, especially in hot weather. The cord N, O, is your lock and key, for by it you are sure no fish can escape that are in your net, you must therefore be careful to hide it: you may let the net stand a day and a night, and if the place be well stored with fish, you will hardly miss them. But if you design to fish only by day, and not to let the net lie in the water, then after the net is planted, let a couple of men beat up and down with long poles, taking a good circumference, and beating towards it about the sides of the water, every now and then thrusting their poles into the bottom of the water; and when you are minded to draw, be sure in the first place to strain in the lock and key N, O, and then having a cord at each wing of the net, from the other side draw them both at once gently towards you, and when they are near at hand, make what haste you can; and thus you may make several sets in one day.

There is a triple, or counter-mesh net, called by some a raffle, wherewith they also catch birds.

RAG, RAKE, } a company or herd of young colts.

RAGOT, is a horse that has short legs, a broad croup, and a strong thick body; and differs from a goussaut in this, that the latter has more shoulders, and a thicker neck.

RAILS, QUAILS, MOOR-POUTS, *&c.* are very good flights for hawks.

Their haunts are much the same with those of the partridge, only the quail loves the wheat-fields most; the moor-pout the heath and forest grounds; and the rails love the long high grass, where they may lie obscure.

The way of finding them is like that of partridges, by the eye and ear, and haunt; but the chief way of all to find them out, is the call or pipe, to which they listen with such earnestness, that you can no sooner imitate their notes but they will answer them, and pursue the call with such greediness, that they will play and skip about you, nay, run over you, especially the quail.

The notes of the male and female differ very much, and therefore you must have them both at your command; and when you hear the male call, you must answer in the note of the female; when you hear the female call, you must answer in that of the male; and thus you will not fail to have them both come to you, who will approach and listen till the net is cast over them.

The way of taking these birds is also the same with that of the partridge, and they may be taken with nets or lime, either bush, or rod, or engine, which you must stalk with; or by a setting-dog.

RAISE; to raise a horse upon corvets, upon caprioles, upon pesades, is to make him work at corvets, caprioles, or pesades. Sometimes we say, raise the fore-hand of your horse.

Raise is likewise used for placing a horse's head right, and making him carry well; and hindering him from carrying low, or arming himself.

RAISING, (with Horsemen) is one of the three actions of a horse's legs, the other two being the stay and the tread, which see in their proper places: the raising, or lifting up his leg, is good, if he perform it hardily, and with ease, not crossing his legs nor carrying his feet too much out or in; and that he also bend his knees as much as is needful.

RAISTY, RESTIVE, } a term used in respect of a horse, when he will go neither backwards nor forwards.

RAKE, a horse rakes when being shoulder splait, or having strained his four quarters, he goes so lame, that he drags one of his fore legs in a semicircle, which is more apparent when he trots than when he paces.

RAKE OF COLTS *See* RAG.

To RAKE A HORSE, is to draw his ordure with one hand out of his fundament, when he is costive, or cannot dung: in doing this, the hand is to be anointed with salad oil, butter, or hogs grease.

RAMINGUE: a horse called in *French* ramingue, is a restive sort of horse, that resists the spurs, or cleaves to the spurs; that is, defends himself with malice against the spurs; sometimes doubles the reins, and frequently yerks, to favour his disobedience.

RAN-

RANGER, a ſworn officer of a foreſt or park, whoſe buſineſs it is to walk daily through his charge, to drive back the wild beaſts out of the purlieus, or disforeſted places, into foreſted lands, and to preſent all treſpaſſes done in his bailiwick, at the next court held for the foreſt.

RANGIFER, a kind of ſtag, ſo called from his lofty horns, reſembling the branches of trees. The blood of this beaſt is accounted an excellent remedy for the ſcurvy, and his hoofs are eſteemed good for the cramp.

RASE: to raſe, or glance upon the ground, is to gallop near the ground, as our *Engliſh* horſes do.

RATS and MICE may be deſtroyed by the following methods. To the powder of arſenic, commonly called ratſbane, add freſh butter, made into a paſte with wheat or barley meal and honey; ſpread pieces of this mixture about thoſe parts of any houſe they moſt frequent; they will eagerly eat it, and, having done ſo, will drink to that exceſs as to kill themſelves. It ſhould be cautiouſly laid, to prevent young children getting at it; and the perſons who prepare it ſhould take particular care to clean their hands after it, as it is ſo ſtrong a poiſon. Unſlacked lime and oatmeal, mixed together, will deſtroy them. Oatmeal and powdered glaſs mixed. or you may add to them ſome freſh butter, and lay it near their haunts. Filings of iron, mixed with oatmeal, or with dough, or wheat flour, will have the ſame effect.

Fry a piece of ruſty bacon, and lay it on the middle of a board three feet ſquare, covering the board pretty thick with birdlime; only leaving ſome narrow paſſes on the board for the mice and rats to get at the bacon, in doing which, they will frequently get among the lime, and be caught. In Staffordſhire, it is cuſtomary to put birdlime about their holes, and, they running among it, it will ſtick to them ſo that they will not leave ſcratching till they kill themſelves. Or take oatmeal flour and coloquintida, make it into a paſte, and lay it in the places where they haunt. The ſeeds of wild cucumbers and black hellebore, mixed with ſuch food as they eat, will kill them. Or powdered hellebore, mixed with wheat or barley meal only, made into a ſtiff paſte with honey, and laid where they come, occaſions their preſent death; but let the perſon who mixes this preparation, be cautious in the uſe of it. When you have caught a rat or mouſe, cut or beat him ſeverely, and let him go, and he will make ſuch a crying noiſe, that his companions will leave the place. Some perſons flea off the ſkin of their heads, but this appears to be too cruel a practice.

Mix honey, metheglin, bitter almonds, and white hellebore, with wheat or barley flour, make the whole into a ſtrong paſte, throw it into their holes, and it kills them. Some deſtroy them by putting hemlock-ſeed into their holes. Or paſte made of bitter almonds, coloquintida, barley, wheat, or oat flour, with mead or honey, and put in their holes, or lay it where they frequent, and it will certainly deſtroy them. Or mix filings of iron or ſteel with a ſtiff paſte made of wheat or barley meal, and honey or mead; and they will be deſtroyed as ſurely as they eat of it. Some perſons ſay, that laying a ſkin of a deer in a room where they uſe to frequent will drive them away.

If hogs-lard be mixed with the brains of a weaſel, and diſtributed about a room in bits as big as a nut, they will not come thither. Or if oak-aſhes are put into their holes, they will run amongſt them, by which means they will get the ſcab, of which they will die. Or ſmallage ſeed, nigella, origanum: the fumes of any of theſe burnt will drive them out of their holes. Likewiſe lupines or green tamarinds burnt in the room will rid you of theſe vermin. Or cork cut into ſmall ſlices, and fried in ſuet, will certainly kill them, if it be laid where they come.

To kill Field Mice and Rats.

Go out in the dog-days, when the fields are tolerably bare, and find out their neſts or holes, which are in ſhape and ſize like an auger-hole, into which put hemlock-ſeed, or hellebore mixed with barley, and they will eat of it ſo as to deſtroy themſelves. To prevent your ſeed-corn from being deſtroyed by theſe vermin, ſteep it in bull's gall, and they will not touch it; or powder green glaſs, and mix with it as much copperas, beaten fine; add alſo as much honey as will make the whole into a paſte, and all the rats and mice will quit your fields.

Fill up their holes with laurel or roſe leaves; or uſe a mixture of black hellebore, bitter almonds, wild cucumber and henbane ſeed, beat together, and made into a paſte with barley-meal or oil. This will deſtroy them, if put into their holes, in fields or houſes. Theſe vermin are very fond of artichokes; to prevent the devouring them, therefore, wrap wool about the roots, and they will decamp; or they may be driven away by ſtrewing plenty of horſe-dung, or fig-tree aſhes. The beſt method to catch them in the field is, to fill an earthen pot half full of water, and put it in the ground, covered with a board that has a hole in the middle; then cover the board with ſtraw, haum, or ſuch like, under which the mice, taking ſhelter, creep to the hole, and will be drowned by falling into the water. Some perſons mix ſand with their corn, which deters them from burrowing in it, by falling into their ears.

But the beſt method that was ever made known to the public, ſeems to be a late diſcovery, called the HAMPSHIRE MILLER'S INFALLIBLE RAT-POWDER. The number of inſtances in which I have known it tried with ſucceſs, induces me to recommend it to all perſons who are infeſted by theſe vermin. It is a perfectly *ſafe* method, not lying in the way of children, and cats will not touch it. I have known above a hundred rats killed by it in the ſtables in one night.

To RATTLE (with ſportſmen) a term uſed of a goat, who is ſaid to rattle, when it cries, or makes a noiſe, through deſire of copulation.

RATTLING IN THE SHEATH, a term uſed of a horſe when he makes a noiſe in the ſkinny part of his yard.

RAT-TAILS, a moſt venomous diſeaſe in horſes, not unlike ſcratches, proceeding ſometimes from too much.

much rest, and the keeper's negligence in not rubbing and dressing them well. Also by reason of good keeping, without exercise, the blood, corrupting in his body, falls down into his legs, which causes the distemper.

These rat-tails come upon the back sinews, and may be known by the part being without hair, from two or three fingers breadth below the hams to the very pastern-joint. They are sometimes dry, and sometimes moist, but always accompanied with crusts and hard callosities, more raised than the rest of the leg: when moist they send forth a sharp humour.

Those that are moist, usually give way to drying applications, such as the following:

Take four ounces of vinegar; of alum and white vitriol, each half an ounce; powder and mix them.

The dry and hard sort, for the most part, give way to the stronger blue ointment; but if they do not yield to this, apply the following caustic ointment:

Take soft soap, two parts; quick-lime, one part; mix, and spread it just large enough to cover the swelling, but no farther; which must be prevented, or it will destroy more than is required.

Coach-horses of a large size, that have their legs charged with flesh, hair, &c. are most subject to this and such like infirmities, which seldom happen to middle-sized horses.

The cure.---Ride the horse well till he be warm, which will make the veins swell, and appear better; afterwards bleed him well on the fetlock veins, on both sides, and next day wash the sores with warm water, and then clip away all the hair about it, and anoint the part aggrieved with the following ointment:

Take green copperas and verdigris of each four ounces; of common honey, half a pound; reduce the copperas and verdigris to a fine powder, and work them up with the honey to a due consistence: use this ointment till the sore be healed. Or take a quarter of a pound of *Flanders* oil of bays, a quarter of an ounce of oil of turpentine, and six drachms of quicksilver; mix the quicksilver and oil of turpentine well together, and then add the oil of bays, and stir all together till you cannot discover any of the particles of the quicksilver; with which anoint the horse's legs twice a day; and when he comes from exercise let his legs be well washed with soap and warm water, and wiped dry.---*See* LEGS OF A HORSE.

RAT-TAIL: a horse is so called when he has no hair upon his tail.

RAZE: a horse razes, or has razed, that is, his corner teeth cease to be hollow, so that the cavity where the black mark was is now filled up, and the tooth is even, smooth, and razed, or shaved, as it were, and the mark disappears.

RE-AFFORESTED, is where a forest has been disafforested, and again made forest, as the forest of *Dean* was by an act of Parliament, in the 20th of *King* Charles II.

REARING AN END (in Horsemanship) is when a horse rises so high before, as to endanger his coming over upon his rider; in that case you must give him the bridle, and leaning forwards with your whole weight, give him both your spurs as he is falling down; but spur him not as he is rising, for that may cause him to come over upon you.

To RECHASE (among hunters) is to make homewards, to drive through the place where the game was first rouzed or started.

RECHASING, driving back the deer, or other beasts, into the forests, chases, &c. from whence they had strayed.

RECHEAT, a certain lesson which huntsmen wind upon the horn when the hounds have lost their game, to call them back from pursuing a counter scent.

RECLAIMING (in falconry) is the calling of a hawk, or bird of prey, back to the fist. The sparhawk, gos-hawk, &c. are reclaimed with the voice; the falcon only by shaking the lure. So that the term luring, with regard to the falcon, is more proper than reclaiming. The partridge is also said to reclaim her young ones, when she calls them together upon their scattering too much from her.

RECLAIMING is also used for taming animals that are wild by nature.

RECORD (among fowlers). A bird is said to record, when it begins to tune or sing within itself; or to form its notes, or dispose its organs for singing. The cock thrush is distinguished from the hen in recording; the first being more loud and frequent in it than the second. Instances have been known of birds beginning to record when they were not a month old. This first essay does not seem to have the least rudiments of the future song; but, as the bird grows older and stronger, one may perceive what the nestling is aiming at. A young bird commonly continues to record for ten or eleven months, when he is able to execute every part of his song, which afterwards continues fixed, and is scarcely ever altered. The term record is probably derived from a musical instrument, formerly used in England, called a recorder; which seems to have been a species of flute, and was probably used to teach young birds to pipe tunes. Lord BACON describes this instrument (in his Second Century of Experiments) to have been straight, to have had a smaller and greater bore, both above and below, to have required very little breath from the blower, and to have had what he calls a fipple, or stopper.

To REDRESS A STAG, (hunting term) is to put him off his changes.

RED-SHANK, a bird that has red legs and feet.

RED-START, a bird so named from its red tail; the word *Stert*, in *Saxon*, signifying a tail. This bird is of a very sullen temper; for if taken old, and not out of the nest, he is very hard to be tamed; and will be so vexed sometimes, as is hardly credible. It is a forerunner of the nightingale, and comes four or five times before he is generally heard, being of a cheerful spirit abroad, and having a very pretty melodious kind of whistling song. The cock is very fair, beautifully coloured, and exceedingly pleasant to the eye. They breed thrice a year, viz. the latter end of *April*, in *May*, and in *June*; this being their ordinary course, except

except somebody spoils or touches their eggs, and then they may come later. They commonly build in holes of hollow trees, or under house-eves, and make their nests with all sorts of things, such as dry grass, small roots of herbs, leaves, horse-hair, wool, and such as the place affords them. It is one of the shyest of birds; for if she perceives you to mind her when she is building, she will forsake it; and if you touch an egg, she never comes to her nest any more; for you can scarcely go to it, but she will immediately spy you; and if she should chance to have young ones, she will either starve them, or break their necks, by throwing them over the nest; but if you bring them up young they change their tempers, and become tame and familiar to the keeper. They must be taken out of the nest at about ten days old; for if left there too long, they are apt to learn some of the old bird's temper, and be very sullen. They are fed with sheep's heart and egg, minced very small, and given at the end of a stick when they gape, about the quantity of three white pease; for if you clog their stomachs, they will presently cast their meat, and die in a short time. When you perceive them to eat off the meat from the stick, cage them up, putting their meat into a pan, and about the sides of the cage; not ceasing, though they feed themselves, to give them a bit or two three or four times a day; for they will hardly eat their fill for a long time, when they begin to feed alone. But when you have used your bird to eat five or six days without feeding, give him some paste, and you will find him delight much therein. He may be kept in what cage you please, only let him be kept warm in the winter, and he will sing in the night as well as the day.

REGARD, has a small signification, when it is used in matters of forest, of which Mr. Manwood speaks, "That the Eyre General Sessions of the Forest, or Justice-Seat, is to be kept every third year, and of necessity, the regarder of the forest must first make his regard or view, which is to be done by the King's writ; and that regarder is to go through the whole forest, and every bailiwick, to see and inquire of the trespasses therein.

REGARD of the Forest, is also taken for that ground which is a part or parcel thereof.

REGARDER is an officer of the King's forest, who is sworn to oversee or make the regard of it; as also to view and inquire of all offences or defaults, committed by the foresters, &c. within the forest; and of all the concealments of them, and whether all other officers do execute their respective offices or not.

REINS, two long slips of leather fastened on each side of a curb or snaffle, which the rider holds in his hand to keep his horse in subjection.

REINS or Kidnies of a Horse. A horse ought to have double reins, which is when he has them a little more elevated on each side of the back-bone, than upon it. The back ought to be straight, and not hollow, because such saddle-backed horses, though they are generally light, and have their necks raised high, yet they seldom have much strength; and it is also difficult to fit the saddle that it does not gall them; besides, they have exceedingly big bellies, which renders them very unsightly.

RELAY, (hunting term) the place where the dogs are set in readiness to be cast off when the game comes that way; also the kennel or cry of relay hounds. Relays are also sometimes used for fresh horses, or the stage where they are kept.

REMOLADE, is a less compounded honey charge for horses. To prepare it, take three pints of lees of wine, and half a pound of hog's grease; boil them together for half an hour, till they be well incorporated one with another; add black honey, pitch, *Burgundy* pitch pounded, common turpentine, of each half a pound; stir these with the other over the fire till they are melted and well mixed; then add bole ammoniac, or bole of *Blois*, of each a quarter of a pound; take the vessel off the fire, and stir it for a quarter of an hour longer. If the charge is not thick enough, it may be brought to a due consistence with a little wheat flour; and if it be too thick, it may be thinned with wine, or lees of wine.

If to this charge an ounce of quicksilver be added, it will be little inferior to the red honey charge, in removing old griefs of the shoulders, legs, swaying of the back, and such like infirmities.

You may first kill the quicksilver in a small quantity of turpentine, and then incorporate it by stirring it with the other ingredients.

A Remolade for the Hoof-bound.

Take a pound of *Burgundy* pitch, half a pound of common turpentine, a quarter of a pound of olive oil, and thicken it well with a sufficient quantity of wheat flour; charge the whole foot of the horse with this remolade lukewarm, after you have applied the following poultice:

Take two parts of sheep's dung, and one part of hen's dung, boil them with water and salt to the thickness of paste; in another pot boil as many mallows as is proper to make a mash, then add a convenient quantity of linseed powdered, and boil it a little longer: afterwards pound them in a mortar with an eighth part of raw garlic, to a paste; incorporate this with the following poultice, adding a little oil of lilies, and make a poultice to be applied very hot to the foot, and cover it with splents.

Renew the application five or six times, once in two days, ever observing to heat the following poultice, and to mix a little fresh with it.

A Remolade to dissolve Kernels to the Glanders, before they come to a Hardness.

Reduce half a pound of linseed to fine flour, mix it with a quart of strong vinegar, and boil it over a clear but gentle fire, stirring it continually till it begins to grow thick, and then add six ounces of oil of lilies.

Another Remolade.

Mix half a pound of wheat flour with white wine, to the consistence of gruel, and boil it over a gentle fire, stirring it without intermission till the whole is united;

then having melted half a pound of *Burgundy* pitch, add half a pound of common turpentine, and incorporate all together: mix this with the gruel, moderately hot; take the veſſel off the fire, and add a pound of the oriental bole in powder, and make a charge.

This will bring down ſwellings of the legs occaſioned by blows, &c. This is to be applied hot, and repeated till the ſwellings be aſſuaged.

Another cheap Remolade for Swellings in the Legs occaſioned by Blows.

Chafe the part hard with ſtrong brandy, and then charge the whole leg with common honey. Renew the application once a day for ſix or ſeven days, waſhing the horſe in a river or pond twice every day.---*See* SWELLED LEGS.

Or, Take half a pint of good vinegar, mingled with half a pound of tallow, and an ounce of flour of brimſtone; or a mixture of common bole, honey, and water, for ſmall ſwellings.

RENETTE, is an inſtrument of poliſhed ſteel, with which they ſound a prick in a horſe's foot.

REPART, is to put a horſe on, or make him part a ſecond time.

REPOLON, is a demi-volt: the croupe is cloſed at five times.

The *Italians* are mightily fond of this ſort of menage. In making a demi-volt they ride their horſes ſhort, ſo as to embrace or take in leſs ground, and do not make way enough every time of the demi-volt.

REPOSTE, is the vindictive motion of a horſe, that anſwers the ſpur by the kick of his foot.

REPRISE, is a leſſon repeated, or a menage recommended; as, to give breath to a horſe upon the four corners of the volt, with only one repriſe; that is, all with one breath.

RESTIVE, or RESTY, a term applied to a horſe, &c. that ſtops or runs back, inſtead of advancing forward. In the menage, a reſtive horſe is a rebellious, refractory, ill-broken horſe, which only goes where it will, and when it will. A horſe of this ſort, who has been too much conſtrained and tyrannized over, ſhould be treated with the ſame lenity as a young colt. The ſpurs are improper to be uſed to either: inſtead of which a ſwitch ſhould be uſed, in order to drive him forward, as he will be thus leſs alarmed; becauſe the ſpurs ſurprize a horſe, abate his courage, and are more likely to make him reſtive, than to oblige him to go forward, if he refuſes to do ſo. There is likewiſe another method to puniſh a reſtive horſe, which is to make him go backward the moment he begins to reſiſt. Theſe corrections generally ſucceed; but the general rule is to puſh and carry your horſe forward, whenever he refuſes to advance, and continues in the ſame place, and defends himſelf either by turning or flinging his croupe on one ſide or the other; and for this purpoſe nothing is ſo efficacious as to puſh him forward vigorouſly.

RETAIN, is what we call hold in, ſpeaking of mares that conceive and hold after covering.

RETRAITS, or PRICKS. If a prick with a nail be neglected, it may occaſion a very dangerous ſore, and feſter ſo into the fleſh, that the foot cannot be ſaved without extreme difficulty; and therefore great care ought to be taken to avoid ſuch fatal conſequences.

When a farrier, in ſhoeing a horſe, perceives that he complains and ſhrinks at every blow upon the nail, it ſhould be immediately pulled out; and if the blood follow, there is no danger; only he muſt not drive another nail in the ſame place. Such an accident ſeldom makes a horſe halt, and he may be ridden immediately after it.

When a horſe halts immediately after he is ſhod, you may reaſonably conclude that ſome of the nails preſs the vein, or touch him in the quick.

To know where the grief lies, take up his lame foot, and knock with your ſhoeing-hammer at the ſound foot, (for ſome ſkittiſh horſes will lift up their foot when you touch it, though it be not pricked) that you may be the better able to judge whether the horſe be pricked when you touch the lame foot; then lift up the ſound foot, and knock upon the top of the clenches on the lame foot; then lift up the others; and if you perceive that he ſhrinks in when you ſtrike any of the nails, you may conclude him to be pricked in that place.

REVENUE, (in hunting) a fleſhy lump formed chiefly of a cluſter of whitiſh worms on the heads of deer, ſuppoſed to occaſion their caſting their horns, by gnawing them off the roots.

REVENUE, is alſo uſed for a new tail of a partridge, growing after the lap of the former. This is meaſured by fingers; and thus they ſay a partridge of two, three, or four fingers revenue.

RHEUM, is a flowing down of humours from the head upon the lower parts.

This diſtemper in horſes proceeds from cold, which makes his teeth looſe, and ſeem long, by the ſhrinking up of his gums; which will ſpoil his feeding, ſo that the meat will lie in a lump in his jaws.

RHEUMATIC EYES IN HORSES, are cauſed by a flux of humours diſtilling from the brain, and ſometimes by a blow. The ſigns are a continual watering of the eye, and his cloſe ſhutting the lids; and ſometimes attended with a little ſwelling.

In order for the cure of it, 1. Mix common bole ammoniac in powder, with vinegar, and the white of two eggs, till it be reduced to a kind of paſte; and apply it in the morning about the eye, for the compaſs of half an inch round, and bathe the eye with aqua vitæ: or,

Roaſt a new-laid egg hard, take off the ſhell, and cut it through the middle; and having taken out the yolk, put white vitriol, about the bigneſs of a nut, in the middle of it; join the two halves of the egg, and wrap all in a piece of clean fine linen; infuſe it in half a glaſs of roſe-water for the ſpace of ſix hours; then throw away the ſoaked egg, and put eight or ten drops of the water into the eyes of the horſe with a feather, morning and evening, and it will quickly complete the cure.

RHEUMATISM IN HORSES. It is defined a chronic local cold. Its ſeat is among the integuments of the muſcles, and, according to Dr. DARWIN, it conſiſts of inſpiſſated mucus left upon their faſcia, paining them when

when they move, and rub against it, like any extraneous material. It is probable the sciatica, or hip-gout in horses, is merely a rheumatism; at least there is no danger in confounding them, since their cure will be the same. Dr. Bracken says, the rheumatism is properly a disorder of the strong and robust; by which he meant, that the vigorous muscular contractions of such, are most retentive of the morbid humour; but as similar effects sometimes happen from opposite causes, the disease may remain fixed in a weak habit, from deficient irritability, and insufficient energy in the fibrous actions to cast it off.

The grand difficulty lies in ascertaining the disease, which is sometimes vagous in different parts of the body; the shoulders are often affected; but that confirmed species particularly designed here, is usually seated in and about the hip-joint and membranes adjacent. The horse goes lame, from no visible cause, but from a long continuance of the disease a wasting of the parts may ensue. The sight and touch must determine the case, distinguishing it from lameness in the foot, the tendon, the hock or stifle, or from the pains occasioned by initient spavins, or curbs. Could certainty be produced, no method would be attended with so probable a chance of a radical cure, as the actual cautery: holes being bored with a small iron, very deep into the muscular parts near the nervus sciaticus, and the issues close covered or blistered, left to discharge a considerable time. Bracken, who was equally a bold and judicious practitioner, recommends this to human patients, and records the cure of an inveterate sciatica by this method, upon a jolly hostess of Yorkshire.

The Cure. Bleed. Rub the parts affected with spirits well camphorated, and oil, or ox-gall, mixed, twice a day, keeping on if possible a thick woolly bandage, well soaked in the mixture. A mercurial purge. A week after, the antimonial beer, to be continued three weeks or longer; the horse kept constantly well clothed, with walking exercise twice a day, the weather permitting. Warm bath, with much friction of the parts; afterwards swimming in a river occasionally.

But the only cure to be depended upon is a month's run at salt marshes in the spring, and being continued abroad in some shady place till autumn; afterwards mercurial physic, and the best stable care.

Embrocation from Bracken. Nerve ointment, and soldiers ointment, two ounces; camphor, two drachms; oil of turpentine, and oil of Peter, each three drachms; spirits of sal ammoniac, two drachms. Mix well, and keep in a pot stopped close with a bladder. Shave off the hair, lather with soap, and when dry, anoint twice a day.

Turpentine drink, from the same. Take ætherial oil of turpentine from Apothecaries Hall, half an ounce; three yolks of eggs, three ounces of treacle; mix. Give this cold in half a pint of white wine, and repeat it every third day, for three turns. Cover with thick blankets. Moderate walking exercise.

Balls of guaiacum powdered, half an ounce; cinnabar of antimony, one ounce, mixed with cordial ball, half a pound, and worked up with syrup of the fine opening roots, are recommended. Blistering the part will sometimes succeed. Do not the inhabitants of *Bath* and *Buxton* extend the use of their warm baths to their rheumatic horses?

RIBS of a Horse, should be circular and full, taking their compass from their very back-bone.

RICHES, (hunting term) a company of martens or sables.

To RIDE, is used for learning the menage.

RIDGES, or Wrinkles of a Horse's Mouth, are the risings of the flesh in the roof of his mouth, which run across from one side of the jaw to the other, like fleshy ridges with interjacent furrows or sinking cavities. It is upon the third or fourth ridge that we give a stroke with the horn, in order to blood a horse whose mouth is over-heated.

RIDGELING, the male of any beast that has been but half cut.

Bloody RIFTS in the Palate of a Horse. First wash the sore place with vinegar and salt till it be raw, then rub the sore place with honey and the powder of jet, and this will soon heal it: or else you may boil a handful of the inward bark of elm in a pint and a half of spring water till it is half wasted, and to this add a little honey, and use it warm two or three times a day.

RIG, a horse that has had one of his stones cut out, and yet has got a colt.

RING-BONE in a Horse, is a hard, callous, or brawny swelling, growing on one of the tendons, between the coronet and pastern-joint, and sticks very fast to the pastern; so that if it be not taken care of betimes, it causes incurable lameness. Sometimes it appears no bigger than a bean, but afterwards rises to half the bigness of a small apple, spreading on both sides the pastern, with a little rising between them.

This evil comes both naturally and accidentally, the first being from the stallion or mare; whereas the other proceeds from some blow of a horse, or a strain caused by curvetting, bounding turns, or races.

RING-TAIL, a kind of puttock or kite, having whitish feathers about the tail.

RING-WALK, a round walk made by hunters.

RIVET, is the extremity of the nail that rests upon the horn when you shoe a horse.

ROACH. This fish is not accounted a delicate fish, and is reckoned as simple as the carp is crafty.

They are more to be esteemed which are found in rivers than in ponds, though those that breed in ponds are much larger. It is a fish of no great reputation for his dainty taste, and his spawn is accounted much better than any other part of him. And you may take notice, that as the carp is accounted the water-fox for his cunning, so the roach is accounted the water-sheep, for his simplicity or foolishness. It is noted that the roach and dace recover strength, and grow in season a fortnight after spawning; the barbel and chub in a month, the trout in four months, and the salmon in the like time, if he gets into the sea, and after into fresh water.

The season for fishing for roach, in the *Thames*, begins about the latter end of *August*, and continues much longer than it is eithe leasant or safe to fish. It

 requires

requires ſome ſkill to hit the time of taking them exactly; for all the ſummer long they live on the weed, which they do not forſake for the deeps till it becomes putrid; and that is ſooner or later, according as the ſeaſon is wet or dry: for you are to know, that much rain haſtens the rotting of the weed. I ſay it requires ſome ſkill to hit the time; for the fiſhermen who live in all the towns along the river, from *Chiſwick* to *Stains*, are about this time nightly upon the watch, as ſoon as the fiſh come out to ſweep them away with a drag-net; and our poor patient angler is left baiting the ground, and adjuſting his tackle, to catch thoſe very fiſh which, perhaps, the night before had been carried to *Billingſgate*.

There is a kind of baſtard ſmall roach, that breeds in ponds, with a very forked tail, and of a very ſmall ſize; which ſome ſay is bred by the bream and right roach. Some ponds are ſtored with theſe beyond belief; and knowing men, that know their difference, call them ruds. They differ from the true roach, as much as a herring from a pilchard; and this baſtard breed of roach is now ſcattered in many rivers, but not in the *Thames*, which affords the largeſt and fatteſt in this nation.

The roach is a leather-mouthed fiſh, and has a kind of ſaw-like teeth in his throat.

In *April*, the cad-bait, or worms, are proper baits for him; in ſummer, angle for him with ſmall white ſnails, or flies; but obſerve that they muſt be under water, for he will not bite at the top: or you may take a *May* fly, and with a plumb ſink it where you imagine roaches lie, whether in deep water, or near the poſts and piles of a bridge or wear. Having ſo done, do not haſtily, but gently pull up your fly; and if there be any roach there, you will ſee him purſue and take it near the ſurface of the water.

In autumn you may angle for him with paſte only, made of crumbs of fine white bread, moulded with a little water in your hands, till it becomes tough paſte; and colour it, but not very deep, with red lead; with which you may mix a little fine cotton, or lint, and a little butter. Theſe laſt are to make it hold on, and not waſh off your hook; with which you muſt fiſh with much circumſpection, leſt you loſe your bait. In winter you may alſo fiſh for roach with paſte; yet gentles are then better bait.

There is another excellent bait experienced to be very good, either for winter or ſummer, viz.

Take a handful of well-dried malt, and put it into a diſh of water; and having grubbed it and waſhed it between your hands till it be clean and free from huſks, pour that water from it, and put in a little freſh water; ſet it over a gentle fire, and let it boil till it is pretty ſoft; then pour the water from it, and with a ſharp knife turning the ſprout end of the corn upward, take off the back part of the huſk with the point of your knife, leaving a kind of inward huſk on the corn, otherwiſe you ſpoil all: then cut off a little of the ſprout end, that the white may appear, and alſo a very little of the other end, for the hook to enter.

When you make uſe of this bait, now and then caſt a little of it into the water; and if your hook be ſmall and good, you will find it an excellent bait either for roach or dace.

Another good bait is the young brood of waſps or bees, if you dip their heads in blood. As likewiſe the thick blood of a ſheep, being half dried on a trencher, and then cut into ſmall pieces, as will beſt ſuit your hook. A little ſalt will preſerve it from turning black, and make it the better.

Or you may take a handful or two of the largeſt and beſt wheat you can get, boil it in a little milk till it is ſoft, then fray it gently with honey and a little beaten ſaffron diſſolved in milk.

The way of fiſhing for roach at *London* Bridge, is after this manner. In the months of *June* and *July*, there are a great many of thoſe fiſh reſort to that place, where thoſe that make a trade of it take a ſtrong cord, at the end whereof is faſtened a three pound weight, and a foot above the lead is faſtened a packthread of twelve feet long to the cord; and to the packthread, at convenient diſtances, are faſtened a dozen ſtrong links of hair, with roach-hooks at the end, baited with a white ſnail, or perriwinkle; then holding the cord in their hands, the biting of the fiſh draws the packthread, and the packthread the cord, which is a ſignal to pull up; by which means they ſometimes draw up half a dozen, but ſeldom leſs than two or three at a draught.

ROAN. A roan horſe is one of a bay ſorrel, or black colour, with grey or white ſpots, interſperſed very thick. When this party-coloured coat is accompanied with a black head, and black extremities, he is called a roan with a blackmoor's head; and if the ſame mixture is predominant upon a deep ſorrel, it is called a claret roan.

ROBIN-REDBREAST. This bird is ſeen in winter upon the tops of houſes, and roofs, and upon all ſorts of old ruins, moſt commonly on that ſide that the ſun riſes and ſhines in the morning, or under ſome covert, where the cold and wind may not pinch him; and therefore his cage ſhould be lined.

It will ſing ſweetly. They breed in the ſpring, and commonly three times a year, viz. *April*, *May*, and *June*. They make their neſts with dry greeniſh moſs, and quilt them within with a little wood and hair. They have ſeldom above five young ones, and not under four; and build in ſome hay-houſe, or barn, or rick of hay. The young may be taken when they are about ten days old, and kept in a little baſket or box; but if they are let alone to lie too long in the neſt, they will be ſullen, and conſequently more troubleſome to bring up.

They muſt be fed with ſheep's heart and egg minced ſmall, as nightingales are; but a little at once, by reaſon of their bad digeſtion; for they are apt to throw up their meat again.

Be ſure they lie warm, eſpecially in the night. When you find them begin to be ſtrong, they may be caged, with ſome moſs put at the bottom of the cage, that they may hang warm; and put ſome meat into a pan or box, both of ſheep's heart and egg, and alſo paſte; and let them have ſome of the wood-lark's mixed meat by them.

To take a robin with a pit-fall is ſo well known, that I need ſay nothing of it; but with a trap-cage and a meal-

meal-worm many may ſometimes be taken in a day. Make choice of the bird you hear ſing, and to know whether it be a cock or a hen, you will find the breaſt of the cock more of a dark red than the hen's, and his red go up farther on the head.

This bird is incident to the cramp, and a giddineſs of the head, which makes him often fall off from his perch upon his back. It is preſent death, unleſs he has ſome help ſpeedily given him.

As for the cramp, the beſt remedy to prevent it, is to keep him warm and clean in his cage; that his feet be not clogged, whereby the joints are frequently eaten off, and the dung is ſo faſt bound on, that it makes his nails and feet rot off, which takes away the very life and ſpirit of the bird.

If you perceive him drooping and ſickly, give him three or four meal-worms and ſpiders, and it will refreſh him.

But for the giddineſs in the head, give him ſix or ſeven earwigs in a week, and he will never be troubled with it.

If you find he has little appetite to eat, give him now and then ſix or ſeven hog-lice; and let him never want water that is freſh two or three times a week.

And to make him cheerful and long-winded, give him once a week, in his water, a blade or two of ſaffron, and a ſlice of liquorice; which will advance his ſong or whiſtling much.

As to the extent of the bird's life, he ſeldom lives above ſeven years, he is ſo ſubject to the falling-ſickneſs, cramp, and oppreſſion of the ſtomach.

ROCK-FISHING, is to be followed only during the ſummer ſeaſon, and is chiefly practiſed in the ſouth and ſouth-weſt parts of *England*, and in ſome places in *Ireland*. In this laſt mentioned country, the rocks of *Dunleary*, which are eight or ten miles in length, and the neareſt part about five miles eaſtward of *Dublin*, are remarkable for this way of fiſhing.

When you fiſh for haddocks, your lines muſt be deep in the water, and your hook baited with two or three lob-worms. Your tackle muſt be ſtrong; for they ſtruggle hard, eſpecially if they have arrived to a tolerable growth.

As to the other part of ſea-fiſhing, namely, in a ſhip under ſail, your line ought to be ſixty fathoms in length, having a large hook affixed to it, and a piece of lead ſufficient to keep it as deep under water as poſſible. Your line muſt be made of hemp, and faſtened to the gunwale of the ſhip.

Cod, mackarel, and large haddock, are the fiſh uſually taken in this way, and ſometimes ling. The bait for them, except for the mackarel, is a piece of raw beef; and it is ſcarcely poſſible to feel either of them bite, even though you hold the line in your hand, by reaſon of the continual motion of the ſhip.

It is in vain to fiſh for mackarel, except when the ſhip lies-by, or is becalmed. A piece of ſcarlet cloth, hung upon a hook, is the firſt bait that is uſed; which never fails of anſwering the intent it was deſigned for. When you have taken a mackarel, cut a thin piece off from the tail, a little above the fin, and place it upon your hook, and you need not fear taking many of them. Thus one or two will ſerve for baits, till you are tired of the ſport. One mackarel, if dreſſed as ſoon as it is taken, will be preferable to a dozen that are brought to ſhore.

RODS (in angling). If you fiſh with more than one hair, or with a ſilk-worm gut, red deal is much the beſt, with hickery top, the whole rod being about four yards long; but for a ſmall fly, with ſingle hair, about three yards, very ſlender, the top of the yellowiſh hickory, with about nine inches of whalebone, and very near as long as the ſtock; the ſtock of white deal, not too ruſh-grown. Let it be thick at the bottom; which will prevent it from being top-heavy, and make it light in the hand.

A rod for ſalmon or large chub, the ſtock of red deal, or aſh, about ten feet, the top about ſeven, proportioned as above; the top of the beſt cane or hickery, but not too ſlender. Get it looped, and uſe a wheel.

The time to provide joints for your rods is near the winter ſolſtice: if poſſible, between the middle of *November* and *Chriſtmas-Day*, or at furtheſt between the end of *October* and the beginning of *January*; the ſap continuing to deſcend till towards *November*, but in the beginning of *January* it ceaſes. The ſtocks or buts ſhould be of ground hazle, ground aſh, or ground willow; though very good ones are ſometimes made of juniper, bay-tree, or elder ſhoots. Stocks ought not to be above two or three feet in length, and every joint beyond it ſhould grow gradually taper to the end of the top. Chooſe the wood that ſhoots directly from the ground, and not from any ſtump; becauſe theſe latter are never ſo exactly ſhaped.

Hazle tops are preferred to all others; and the next to them are yew, crab-tree, or black-thorn. Some indeed uſe the bamboo cane, and ſay it excels the beſt hazle.

But as the hazle is freeſt from knots, and of the fineſt natural ſhape, it ſeems fitteſt for the purpoſe. If they are a little warped, you may bring them ſtraight at a fire; and if they have any knots or excreſcences, you muſt take them off with a ſharp knife; though, if poſſible, avoid gathering ſuch as have either of theſe defects.

For the ground angle, eſpecially in muddy waters, the cane or reed is preferred for a ſtock. It ſhould be three yards and a half long, with a top of hazle, conſiſting of one, two, or three pieces, all of them together two yards, or one and a half long, at leaſt, including the whalebone: your rod will then be in all five yards and a half, or five yards long, at leaſt. The ſtiffneſs of the cane is helped by the length and ſtrength of the top; the pliant and regular bending of which preſerves the line.

Having got an hazle top, made of your deſired length, cut off five or ſix inches of the ſmall end; then piece neatly to the remaining part a ſmall piece of round, ſmooth, and taper whalebone, of five or ſix inches long, and whip it to the hazle with ſtrong ſilk, well rubbed with the beſt ſhoemaker's wax. At the top of the whalebone whip a narrow but ſtrong nooſe of hair, with waxed ſilk, to put your line to.

The beſt method to piece hazle and bone is, at firſt whip

whip the end of the hazle with thread, and bore it with a ſquare piece of iron of a ſuitable ſize; then make the thick end of the bone to go into it, after it has been dipped in pitch; then ſcrape off, file the hazle, and whip it neatly.

But the neateſt rod is thus made:---Get a white deal, or fir-board, thick, free from knots and frets, and ſeven or eight feet long. Let a dexterous joiner divide this with a ſaw into ſeveral breadths; then, with his planes, let him ſhoot them round, ſmooth, and ruſh-grown, or taper. One of theſe will be ſeven or eight feet long, proportioned to the fir, and alſo ruſh-grown. This hazle may conſiſt of two or three pieces of yew, about two feet long, made round, taper, and ſmooth; and to the yew a piece of ſmall, round, and ſmooth whalebone, five or ſix inches long. This will be a curious rod, if neatly worked; but be ſure that the deal for the bottom be ſtrong and round.

The rod for a fly, and running worm, in a clear water, muſt by no means be top-heavy, but very well mounted, and exactly proportionable, as well as ſlender and gentle at top; otherwiſe it will neither caſt well, ſtrike readily, nor ply and bend equally, which will very much endanger the line. Let both the hazle and yew tops be free and clear from knots; they will otherwiſe be often in danger of breaking.

As the whiteneſs of the fir will ſcare away fiſh, you muſt colour your ſtock in this manner: warm the fir at the fire, when finiſhed by the joiner, and then, with a feather dipped in aqua fortis, ſtroke it over, and chafe it into the wood, which it will make of a pure cinnamon colour.

It is found very uſeful to have rings, or eyes, made of fine wire, and placed upon your rod, from one end to the other, in ſuch a manner as that when you lay your eye to one, you may ſee through all the reſt. Through theſe rings your line muſt run, which will be kept in a due poſture by that means: and you muſt have a winch or wheel affixed to your rod, about a foot above the end; by which you may, if it ſhould be proper, give liberty to the fiſh.

Rods for roach, dace, tench, chub, bream, and carp, ſhould not have the top ſo gentle as thoſe for fly, but pretty ſtiff, ſo that the rod may exactly anſwer the motion of the hand: for roach and dace only nibble, and if you ſtrike not in that very moment, eſpecially if you fiſh with paſte, or any very tender bait, you miſs them: and a ſlender top folds and bends with a ſudden jerk.

In a time of drought, ſteep your rod in water a little before you begin to angle. Faſten to the top of your rod, or fin, with ſhoemaker's wax and ſilk, a nooſe or loop of hair, not large, but ſtrong and very ſtraight, to fix your line to.

Your top for the running line muſt be always gentle, that the fiſh may the more inſenſibly run away with the bait, and not be ſcared with the ſtiffneſs of the tackle.

To preſerve hazles, whether tops or ſtocks, from being worm-eaten or rotten, twice or thrice in a year, as you think fit, rub them all over with ſallad-oil, tallow, or ſweet butter, chafing it in with your hand; but above all, keep them dry, to prevent their rotting, and not too near the fire, leſt they grow brittle: and in the ſpring, before you begin to angle, ſteep them at leaſt twelve hours in water. *See* ANGLING, FISHING, *&c.*

ROD, is a ſwitch carried by the horſeman in his right hand, partly to repreſent a ſword, and partly to conduct the horſe, and ſecond the efforts of the hand and heels.

ROD-NET, a kind of net for catching blackbirds and woodcocks.

RODGE, a ſort of water fowl, ſomewhat like a duck, but of a leſſer ſize.

ROE, the ſpawn or ſeed of fiſh. That of the male fiſhes is uſually diſtinguiſhed by the ſoft roe, or melt; and that of the female by the hard roe, or ſpawn.

ROEBUCK, is called a hind the firſt year, a gyrle the ſecond, a hemuſe the third, a roebuck the fourth.

ROOKERY, a place where rooks build their neſts, breed their young, and uſually inhabit and reſt in the night, after they have been abroad feeding in the day. Rooks may be taken the ſame way as pigeons. They are very deſtructive of corn, eſpecially of wheat, though they clear the ground of caterpillars, that do incredible damage by eating the roots of the corn, and on this account may be conſidered the farmers friends. They ſearch out the lands when it is ſown, and watching them more carefully than the owners, they perceive when the ſeed firſt begins to ſhoot up its little blade: as this is their time of feeding on it, they will not be at the pains of ſearching for it at random in the ſown land, for that is more trouble than ſo ſmall a grain will requite them for; but, as ſoon as theſe blades appear, they are directed, without loſs of time or pains by them, to the places where the grain lies, and in three or four days time they will root up ſuch vaſt quantities of them, that a good crop is often thus deſtroyed in embryo. After a few days, the wheat beginning to grow, its blades appear green above ground, and then the time of danger from theſe birds is over; for then the ſeeds are ſo far robbed of their mealy matter, that they are of no value to that bird, and it will no longer give itſelf the trouble to deſtroy them.

The beſt remedy the farmer has, is to watch well the time of the corn's being in the condition to feed upon it; and as this laſts only a few days, he ſhould keep a boy conſtantly in pay to watch the field from day-break till the duſk of the evening. Every time they ſettle upon the ground, or fly over it, the boy is to hollow, and throw up a dead rook into the air: this will always make them riſe, and by degrees they will be ſo tired of this conſtant diſturbance, that they will ſeek out other places of preying, and will leave the ground even before the time of the corn's being unfit for them. The reaſon of their riſing at the toſſing up of their dead fellow-creatures is, that they are a bird extremely apprehenſive of danger, and they are always alarmed when one of their comrades riſes. They take this for the riſing of an out-bird, and all fly off at the ſignal.

ROPE, CORD, or STRAP, is a great ſtrap tied round a pillar, to which a horſe is faſtened when we begin to quicken and ſupple him, and teach him to fly from the ſhambrier, and not to gallop falſe. In menages that have

have no pillar, a man ſtands in the center of the ground holding the end of the rope.

ROPES OF TWO PILLARS, are the ropes or reins of a caveſſon, uſed to a horſe that works between two pillars.

ROT, a diſorder which threatens ſheep before it falls among them; to prevent which obſerve the following:

About Bartholomew-tide, or the beginning of *September*, go out in the morning as ſoon as the ſun begins to ſhine out clear, and taſte the dew upon the graſs of your paſture; if it be bitter, brackiſh, and many long gliſtening ſtakes, or ſtreaks, like the weaving of ſpiders, lie on it, and ſo continue for ſome time, it prognoſticates a rot or a very unhealthy winter for ſheep, eſpecially in low wet grounds, or if they feed amongſt graſs that has not been mowed. To prevent the rot taking hold of them, rub their mouths once a week with ſalt called andracei; diſſolve it in ſharp vinegar, and fright them early about the paſtures with a dog till they be well heated, for this beats the mildews from the graſs, and other dews that are hurtful to them in feeding, alſo the nettles, webs, and flaſks, which otherwiſe they might lick up, for thoſe contribute much to the rot.

The beſt graſs for ſheep is that amongſt which grows a good quantity of melilot, ſelf-heal, clover, cinquefoil, broom, white henbane, or knot-graſs.

ROUND, or VOLT, is a circular tread.

To cut a ROUND. *See* CUT.

To ROUND A HORSE, OR MAKE HIM ROUND, is a general expreſſion for all ſorts of menage upon rounds; ſo that to round a horſe upon trot, gallop, or otherwiſe, is to make him carry his ſhoulders and his haunches compactly or roundly, upon a greater or ſmaller circle, without traverſing or bearing to a ſide.

To round your horſe the better, make uſe of a cord or ſtrap, held in the center, till he has acquired the habit of rounding and making of points.

ROUSSIN, is a ſtrong well knit, well ſtowed horſe, which are commonly carried into *France* from *Germany* and *Holland*; though, it is true, *France* itſelf produces ſome ſuch.

ROWEL, the goad or pricks of a ſpur, ſhaped like the figure of a ſtar.

ROWELLING OF HORSES; firſt, caſt the horſe upon ſome ſoft place, make a little ſlit through the ſkin, three or four inches below the part aggrieved; but let it be no bigger than that you can thruſt a ſwan's quill into it; then raiſe the ſkin from the fleſh a little with the coronet, and put in the quill, blowing the ſkin from the fleſh upwards, even to the top, and all over the ſhoulder; ſtop the hole with your finger and thumb, and beat the place blown all over with a hazle ſtick, and with your hand diſperſe the wind into every part, and let it go.

When this is done, take horſe hair, or red farſenet, half the thickneſs of your little finger, and having put it into a rowelling needle of ſeven or eight inches in length, thruſt it in at the firſt hole, and put it upwards, and draw it out above at leaſt ſix inches; and if you will, you may put it in another above that, and then tie the two ends of the rowel together; move and draw them to and fro in the ſkin; but before you put them in you muſt anoint them with ſweet butter and hog's greaſe, and every day after likewiſe, for that will make the corruption run out the better.

Mr. LAWRENCE, in his excellent treatiſe, ſays, the *French* call rowels *fontinels*, and are intended to anſwer the ſame end as iſſues in the human body, namely, to evacuate ſuperabundant juices, or to cauſe revulſion, or derivation from any particular part, by making a general drain or draught. Rowels have a gradual, yet effectual operation, and are of excellent uſe in all caſes of ſtagnated or impeded humours, in recent lameneſſes and ſtrains, attended with inflammation; in ſudden ſwellings from blows, where extravaſation, or burſting of the fluids from their veſſels, has taken place.—BRACKEN has queſtioned their good effects on lean and hide-bound horſes, and in the greaſe; but experience is ſurely againſt him in the latter caſe, ſince rowels have uſually the effect of ſtopping, at leaſt diminiſhing, the greaſy diſcharge in the legs; and hide-bound and unthrifty horſes are often ſuddenly amended by the uſe of this drain, for which, conſidering their emaciated appearance, it ſeems difficult to aſſign a reaſon. It is ſcarce worth while to deſcribe the operation of making a rowel, it is a thing of ſuch common uſe; and every farrier who has made one, in courſe, ſuppoſes he has opened a door for the exit of foul humours excluſively, reaſoning in that ſtraight forward way, that it is a pity it ſhould ever deceive a man, to wit, that a diſcharge of ſuch ill favour, muſt needs be of a malignant nature.

The parts proper for their inſertion, are the cheſt, ſhoulders, belly, hips, inſide or outſide of the thighs; but Mr. CLARKE objects to their being made between the jaw-bones, on account of the conſtant motion of the jaws. A horſe will bear the diſcharge of a conſiderable number of them at once, which, indeed, in urgent caſes, is abſolutely neceſſary, in order to derive any conſiderable or ſpeedy benefit from the practice. GIBSON gives a very neceſſary caution againſt rowelling horſes of a dropſical habit, with poor and watery blood, and when the ſwellings appear upon their legs, belly, and ſheath; in ſuch caſe, the iſſues never come to a good digeſtion, inſtead of which a large flux of ſerous humours will enſue, and it may be difficult to prevent a mortification. Schirrus and cancer alſo, may be produced, from inſerting rowels near glandulous parts, or when the muſcular fleſh may have been wounded in the operation, or bruiſed by the continual preſſure of the hard leather. Should a rowel have been injudiciouſly exhibited in a diſeaſe, and fail to diſcharge, except a little thin bloody ichor, there is danger, that inſtead of ſuppurating properly, it may ſoon turn gangrenous; in this caſe Mr. CLARKE adviſes to take out the leather inſtantly, and foment the parts with a ſtrong infuſion of chamomile, and to poultice repeatedly, if the ſituation will admit of it, alſo to bathe with ſpirits of wine and turpentine, defending the wound from the external air; if needful, two or three ounces of *Peruvian* bark per day, may be given, either by drink or ball. The inciſion for a rowel ſhould be

be about three-eighths of an inch long, and in separating the skin from the flesh, the latter ought not to be wounded or bruised; the leather must be very thin, not stiff or hard, nor so large as formerly in use; the shape and size of a crown piece is the most proper, having a large round hole in the middle; cover the rowel with lint or tow, dipped in digestive ointment, and after its introduction, close the orifice with a pledget of tow dipped in the same. If the operation succeed, the surrounding parts soon swell, and a plentiful discharge of simple humour ensues; which in two or three days will be changed into a thick white pus or matter. The time is uncertain for the continuance of the discharge; but it must not be continued too long, or the leather will be obliged to be cut out, and a very unsightly induration or lump may remain. *See* SETON AND FARRIERY.

ROYAL, (among Hunters) one of the starts of a stag's head.

RUBICAN COLOUR OF A HORSE, is bay, sorrel, or black, with a little grey, or white upon the flanks, but so that this grey or white is not predominant there.

RULES FOR BUYING HORSES. What has been treated of under the name of draught-horse, concerning buying, shape, usage, &c. being confined, in a manner, wholly to those employed for plough and cart, these rules are more general and comprehensive; and many things under this head are of great use, and therefore must be particularized: as,

Election; which is the end for which a man buys, and is a thing only shut up in his breast.

Breed; which must be either taken from faithful report, a man's own knowledge, or from some known and certain characters, by which one strain, or one country, is distinguished from another.

As the *Neapolitan* horse is known by his hawk nose, the *Spanish* by his small limbs, the *Barbary* by his fine head and deep hoof, the *Dutch* by the roughness of his legs, and the *English* by his general strong knitting together; and so of divers others.

The colour; and though there are none exempt from goodness, yet some are accounted better than others, as the dapple grey for beauty; the brown bay for service; the black, with silver hair, for courage; and the liard, and true mixed roan, for countenance: as for the sorrel, the black without white, and the unchangeable iron-grey, they are reckoned choleric; the bright bay, flea-bitten; the black with white marks are sanguinists; the black, white, yellow, dun, kite-glued, and the pye-bald, are phlegmatic; and the chesnut, the mouse-dun, the red bay, and the blue grey, are melancholy.

For pace in general, with either trot, amble, rack, or gallop; it must be referred to the end for which a horse is bought, particularly if it be for the war, running, hunting, or for a man's own pleasure, the trot is most tolerable; and this motion is known by a cross moving of the horse's limbs, as when the fore-leg, or near hinder-leg, or the near fore-leg and the fore hinder-leg, move and go forward in one instant; and in this motion, the nearer the horse takes his limbs from the ground, the opener, the evener, and the shorter is his pace; for to take up his feet slovenly, shews stumbling and lameness; to tread narrow or close, shews interfering or falling; to step uneven, indicates toil and weariness; and to tread strong, shews over-reaching.

Ambling; which is chosen for ease, great men's seats, or long travel, is a motion contrary to trotting; for now both the feet of one side must move equally together, that is, the far fore-leg and the far hinder-leg, and the near fore-leg and the near hinder-leg; and this motion must be just, smooth, large, and nimble; for to tread false takes away all ease, to tread short rids no ground, to tread rough shews rolling, and to tread slow shews a false pace, (which never continues), as also lameness.

Racking; a pace required for buck-hunting, galloping on the highway, post, hackney, or the like: and it is the same motion as ambling, only it is a swifter time, and a shorter tread; and though it rids not so much ground, yet it is a little easier.

Galloping is the last, and must be joined to all the other paces; and this every trotting and racking-horse naturally does, but the ambler is a little unapt to it, because the motions are both one, so that being put to a greater swiftness or pace than formerly he had been acquainted with, he manages his legs confusedly and disorderly, but being trained gently, and made to understand the motion, he will as well undertake this as any trotting horse whatever. Now in a good gallop, you must observe, first, that the horse takes up his feet nimbly from the ground, but does not raise them high, that he neither rolls not beats himself, that stretches out his fore-legs, follows nimbly with the others, and neither cuts under his knee (which is called the swish-cut) nor crosses, nor claps one foot on another, and ever leads with his fore-foot, and not with the near; such a one is said ever to gallop comely and true, and he is fittest for speed, or any swift employment; but if he gallops round, and raises his fore-feet, he is then said to gallop strongly, and not swiftly, and is fittest for the great saddle, the wars, and strong encounters; if he gallops slow, yet sure, he will serve for the high-road; but if he labours his feet confusedly, and gallops painfully, then the buyer may conclude he is not good for galloping service; besides, it betrays some hidden lameness in him.

His nature; which must be referred to the end for which a horse is bought; ever observing, that the biggest are fittest for strong occasions and great burdens, strong draughts, and double carriage; the middle size for pleasure and general employments; and the least for ease, sweet walks, and summer hacknies. But to be yet something more particular as to the rule of choice, it is contained in the discovery of natural deformities, accidental outward sorances, or inward hidden mischiefs, which are so many and so infinite, that it is very tedious, though exceeding necessary, to explain them. Wherefore you are, upon this occasion, to

Observe how a horse stands to view, that is, seeing him stark naked before, and placing yourself before his face, take a strict view of his countenance, and the chear-

chearfulness thereof, that being an excellent glass wherein to discern his goodness and perfection.

On ordering him out, let no one be the last in the stable but yourself; you should also, if possible, be the first in, lest the owner, or some of his quick emissaries, take an opportunity to fig him; a practise common among dealers, in order to make the tail shew as if carried very high, when, in reality, the day after he will in appearance be five pounds worse.

His ears; which if they are small, thin, short, pricked, and moving, or if they be long, be well set on, and well carried, it is a mark of beauty, goodness, and mettle; but if they are thick, laved, or lolling, wide set, and unmoving, then they are signs of dullness, doggedness, and ill-nature.

His face; which, if wan, his forehead swelling outward, no mark or feather in his face set high as above his eyes, or at the top of his eyes; if he has a white star, or white ratch of an indifferent size, and placed even, or a white snip on his nose or lip, they are all marks of beauty and goodness: but if his face be flat, cloudy, or scouling; his forehead flat as a trencher, which is called mare-raced, for the mark in his forehead stands low, as under his eyes; if his star or ratch stand awry, or in an ill posture, or instead of a snip, his nose be raw or unhairy, or his face generally bald, they all denote deformity.

The proper time to examine his eyes, is in a dark stable, with a candle, or rather in the day-time when he is led from the stall; cause the man who leads him to stop at the stable-door, just as his head peeps out, and all his body still within. Never look at the eye full; but let your observations be oblique. If the white of the eye appears reddish at the bottom, or of a colour like a withered leaf, I would not advise you to purchase him. A moon-eyed horse is known by his weeping, and by keeping his eyes almost shut at the beginning of the distemper: as the moon changes, he gradually recovers his sight, and in a fortnight or three weeks sees as well as before he had the disorder. Dealers, when they have such a horse to sell, at the time of his weeping, always tell you that he has got a bit of straw or hay in his eye, or that he has received some blow; they also take care to wipe away the humour, to prevent its being seen; but a man should trust only himself in buying of horses, and above all be very exact in examining the eyes. In this he must have regard to time and place where he makes the examination. Bad eyes may appear good in winter, when snow is upon the ground; and often good ones appear bad, according to the position of the horse. Never examine a horse's eyes by the side of a white wall, where the dealers always choose to shew one that is moon-eyed.

The moon-eyed horse has always one eye bigger than the other, and above his lids you may generally discover wrinkles or circles.

If you observe a fleshy excrescence that proceeds from the corner of the eye, and covers a part of the pupil, and is in shape almost like the beard of an oyster, though seemingly a matter of no great consequence, yet it is what I call a whitlow in the eye, and if suffered to grow, it draws away a part of the nourishment of the eye, and sometimes occasions a total privation of sight.

His eyes; which, if round, big, black, shining, starting or staring from his head; if the black of the eye fills the pit, or outward circumference, that in the moving, very little, if any, of the white appears, they are all signs of beauty and goodness. But if his eyes are uneven, and of a wrinkled proportion, or if they be small, which in horsemanship is called pig-eyed, both are uncomely signs of weakness: if they be red and fiery, beware of moon-eyes, which is next door to blindness: if white and walled, it betrays a weak, slight, and unnecessary starting, or finding of baggards: if with white specks, take heed of the pearl, pin, and web: if they water or appear bloody, it indicates bruises: and if any matter, it shews old age, and over-riding, festering, rheums, or violent strains: if they look dead or hollow, or much sunk, beware of blindness at the best: if the black does not fill the pit, but that the white is always appearing, or if in the moving the white and black be seen in equal quantity, it is a sign of weakness, and a dogged disposition in him.

Cheeks and chaps: upon the handling whereof, if you find the bones lean and thin, the space wide between them, and the thropple or windpipe as big as a man can gripe, and the void place without spots or kernels, and the jaws generally so great that the neck seems to couch within them, they are excellent signs of great wind, courage, and soundness of heart and body; but if the chaps are fat and thick, the place between them closed up with gross substance, and the thropple little, they all are signs of short wind and much inward foulness; if the void place appears full of knots and kernels, beware of the strangles and glanders, the former of which may be easily discovered by a swelling between the two nether jaw-bones, which discharge a white matter. This disorder usually appears about three, four, or five years old; there is no young horse but what is subject to it either perfectly or imperfectly; there is also a disorder which is called the bastard-strangles, which appears sometimes like, and sometimes different from the true strangles. The bastard-strangles are what proves the horse has not thrown off his true strangles, but that some foul humours are still left behind; this disorder may come at four, five, six, or seven years of age. A continual languor at work, and seemingly perpetual weariness, without any visible ailment, is a certain sign that he is not clear of this disorder, which sometimes will affect the foot, the leg, the ham, the haunch, the shoulders, the breast, or the eye, and without care in this latter case, may corrupt the pupil of the eye, as the small pox does in men.

Feel if he has any flat glands fastened to the nether jaws, which give him pain when you press him, and remember they indicate the glanders.

There is also another disorder, much like the strangles, which is called morfoundering, and appears by a running at the nose, but the swelling under the jaw is less. If his jaws be so straight that his neck swells above them, if it be no more than natural, it is only a sign of short wind and pursiness, or grossness; but if the

ſwelling is long, and cloſe by his chaps, like a whetſtone, then take care of the vivers, or ſome natural impoſthume.

His noſtrils; which, if open, dry, wide, and large, ſo as upon any ſtraining the internal redneſs is diſcovered, and if his muzzle be ſmall, his mouth deep, and his lips equally meeting, then all are good ſigns of wind, health, and courage; but if his noſtrils are ſtraight, his wind is but little; or if his muzzle is groſs, his ſpirit is dull; if his mouth be ſhallow, he will never carry a bitt well; and if his upper lip will not reach his nether, old age or infirmity have marked him out for carrion: if his noſe be moiſt and dropping, when it is clear water, it is a cold; if foul water, then beware of the glanders.

His breaſt; look down from his head thereto, and ſee if it is broad, out-ſwelling, and adorned with many features, for that ſhews ſtrength and durance; whereas the little breaſt is uncomely, and denotes weakneſs; the narrow breaſt is apt to ſtumble, fall, and interfere before; that which is hidden inwards, and wants the beauty and diviſion of many features, indicates a weak-armed heart, and a breaſt that is unwilling, and not fit for any violent toil or ſtrong labour.

In ſhewing a horſe, a dealer or jockey will generally place him with his fore feet on a higher ground than his hind ones, in order that the ſhoulder may appear further in his back, and make him higher in ſight than he really is; but be ſure to cauſe him to be led on level ground, and ſee that his ſhoulders lie well into his back; for an upright ſhouldered horſe carries his weight too forward, which is diſagreeable, and unſafe to the rider. Have his fore legs ſtand even, and you will then have it in your power to judge of his ſhoulders. If you do not obſerve this, the dealer will contrive that his near leg ſtands before the other, as the ſhoulders in that poſition, appear to lay further in the back. If his knees ſtand nearly cloſe, and his toes quite in a line, not turning in, nor yet turning out, be aſſured he will not cut: if he takes his legs up a moderate height, and neither clambers, nor yet goes too near the ground, he will moſt likely anſwer your purpoſe.

His thighs; look down from his elbow to his knees, and ſee that his fore-thighs are ruſh-grown, well hardened within, ſinewed, fleſhy, and out-ſwelling, they being good ſigns of ſtrength; whereas the contrary betokens weakneſs, and are unnatural.

His knees; which, you are to ſee if they carry proportion, ſhould be clean, ſinewy, and cloſe knit, for then they are good and comely, but if one be bigger and rounder than the other, the horſe has received ſome miſchief; if groſs, he is gouty; if ſeared or hair-broken, it is a true mark of a ſtumbling jade, and a perpetual faller.

His legs; which look down, from his knees to his paſterns, and if they are found to be lean, flat, and ſinewy, and the inward bow of the knee without ſeams or hair-broken, it ſhews a good ſhape, and ſoundneſs; but if there are hard knots on the inſide of the legs they are ſpleints, if on the outſide they are ſcrews or excretions; if ſcabs be under his knee on the inſide, it is the ſwift-cut, and he will badly endure galloping: but if above his paſterns, on the inſide, ſcabs are found, it ſhews interfering: again, if the ſcabs be generally over his legs, it is extreme foul keeping, or elſe a ſpice of the mange: if his legs be fat, round, and fleſhy, he will never endure labour: and if ſeams, ſcabs, and hair-brokenneſs, be found on the inward bow of his knees, it ſhews a melander, which is a cancerous ulcer.

Circled feet are very eaſy to be known: they are when you ſee little excreſcences round the hoof, which encloſe the foot, and appear like ſo many ſmall circles. Dealers, who have ſuch horſes, never fail to raſp round their hoofs, in order to make them ſmooth; and to conceal the raſping; when they are to ſhew them for ſale, they black the hoof all over, for without that, one may eaſily perceive what has been done, and ſeeing the mark of the raſp, is a proof that the horſe is ſubject to this accident. As to the cauſe, it proceeds from the remains of an old diſtemper, or from having been foundered; and the diſeaſe being cured, without care being taken of the feet; whereupon the circulation of the blood not being regularly made, eſpecially round the crown, between the hair and the horn, the part loſes its nouriſhment, and contracts or enlarges itſelf in proportion as the horſe is worked. If theſe circles were only on the ſurface, the jockies method of raſping them down would then be good for nothing; but they form themſelves alſo within the feet, as well as without, and conſequently preſs on the ſenſible part, and make a horſe limp with ever ſo little labour. One may juſtly compare a horſe in this ſituation, to a man that has corns on his feet, and yet is obliged to walk a long way in ſhoes that are too tight and ſtubborn: a horſe therefore is worth a great deal leſs on this account.

After having well examined the feet, ſtand about three paces from his ſhoulders, and look carefully that he is not bow-legged, which proceeds from two different cauſes; firſt, from nature, when a horſe has been got by a worn-out ſtallion; and ſecondly, from his having been worked too young: neither in the one caſe nor the other is the horſe of any value, becauſe he never can be ſure footed: it is alſo a diſagreeable ſight if the knees point forwards, and his legs turn in under him, ſo that the knees come much further out than the feet: it is alſo called a bow-legged horſe, and ſuch an one ought to be rejected for any ſervice whatſoever, as he never can ſtand firm on his legs; and how handſome ſoever he may otherwiſe be, he ſhould on no account be uſed for a ſtallion, becauſe all his progeny will have the ſame deformity.

Paſtern and paſtern-joints: the firſt of which muſt be ſhort, ſtrong, and ſtanding upright; the ſecond, clear, and well knit together, for if they are ſwelled or big, beware of ſinew-ſtrains, and gourdings: and if the other be long, weak, or bending, the limbs will hardly be able to carry the body without tiring.

The hoof; which ſhould generally be black, ſmooth, tough, rather a little long, than round, deep, hollow, and full of ſounding, for white hoofs are tender, and carry the ſhoe ill: a rough groſs-ſeamed hoof diſcovers old age, or over-heating: a brittle one will carry no

ſhoe

ſhoe at all, and an extraordinary round one is bad for foul ways and deep hunting; a flat one that is pumiced, ſhews foundering; and a hoof that is empty and hollow ſounding, betokens a decayed inward part, through ſome dry wound or founder. Then as for the crown of the hoof, if the hair lies ſmooth and cloſe, and the fleſh flat and even, the hoof is perfect; but if the hair be ſtaring, the ſkin ſcabbed, and the fleſh riſing, you may expect a ring-bone, crown-ſcab, or quittor-bone.

You are to conſider the ſetting on of his creſt, head, and mane. As for his head, ſtand by his ſide, and ſee that it does not ſtand too high nor too low, but in a direct line: that his neck be ſmall at the ſetting on of his head, and long, growing deeper to the ſhoulders, with a high, ſtrong and thin mane, long, ſoft, and ſomewhat curling, they being beautiful characters, whereas to have the head ill ſet on, is the greateſt deformity: for if thick ſet, be aſſured it will cauſe him to toſs up his noſe for want of wind, which cauſes a horſe to carry his head diſagreeably high, and occaſions a ticklish mouth. To have any bigneſs or ſwelling in the nape of the neck, ſhews the poll-evil, or beginning of a fiſtula: to have a ſhort thick neck, like a bull, to have it falling at the withers, to have a low, weak, a thick or falling creſt, ſhews both the want of ſtrength and mettle: to have much hair on the mane, denotes intolerable dullneſs: to have it thin, ſhews fury; and to be without any, or ſhed, ſhews the worm in the mane, the itch, or elſe plain mangineſs.

In the next place, you are to conſider his back, ribs, belly, and ſtones. Firſt view his chine, that it be broad, even, and ſtraight; that the ribs are well compaſſed, and bending outward; that the fillets be upright, ſtrong and ſhort, and not above a handful between his laſt rib and the huckle-bone: his belly ſhould be well laid down, yet laid within his ribs, and his ſtones well truſſed to his body, which are all good marks of health and perfection; be careful in obſerving that he has no ſwelling in his teſticles, a diſorder that uſually proceeds either from ſome ſtrain in working, or from the horſe's having continued too long in the ſtable, or from putting one leg over any bar, and being checked by the halter, or from any other accident that confines a horſe, makes him kick or fling, and bruiſe his cods, and there is no other way of knowing this diſtemper, but by ſome outward ſwelling upon the part. To have his chine narrow, he will never well carry a ſaddle without wounding: and to have it bending or ſaddle-backed, ſhews weakneſs: to have his ribs flat, there will be no liberty for wind; to have his fillets hanging, long, or weak, he will never clamber a hill, nor carry a burden; and to have his belly clung up or gaunt, or his ſtones dangling down, looſe or aſide, are both ſigns of ſickneſs, tenderneſs, foundering of the body, and unfit for labour.

You muſt view his buttocks, that they are round, plump, full, and in an even level with his body, or if long, that they be well raiſed behind, and ſpread forth at the ſetting on of the tail, which is comely and beautiful, whereas the narrow-pin buttock, the hog or ſwine rump, and the falling and downlet buttocks, are full of deformity, and ſhews both an injury in nature, and they are neither fit nor becoming for pad, foot-cloth, or pillion. The horſe that is deep in his girthing-place, is generally of great ſtrength.

His hinder thighs, or gaſkins; which obſerve that they be well let down, even to the middle joint, brawny, full and ſwelling, which is a very good ſign of ſtrength and goodneſs, whereas the lank, ſlender thighs ſhew the contrary.

View his cambrels; from the thigh-bone to the hock it ſhould be pretty long, but ſhort from the hock to the paſtern; have an eye to the joint behind, and if it be but ſkin and bones, veins and ſinews, or rather ſomewhat bending than too ſtraight, it is then perfect, and as it ought to be; but if it has chaps or ſores on the inward bow or bending, then it is a ſelander; if the joint is ſwelled generally all over, then it betokens a blow or bruiſe: if the ſwelling be particular, as in the pit or hollow part, or on the inſide, and the vein full and proud, and that it be ſoft, it is a blood ſpavin; if hard, a bone-ſpavin: but if the ſwelling be juſt behind, before the knuckle, then you may know it is a curb.

His hinder legs; which, ſee if they be lean, clean, flat, and ſinewy, then all is well; but if fat, they will not endure labour: if ſwelled, the greaſe is melted in them: if the horſe be ſcabbed above the paſterns, he has the ſcratches: if chapped under his paſterns, he has rains, and all of theſe are noiſome.

There is alſo a defect which is more common in the hind than the fore-legs, though the latter are not quite exempt from it, and it is called the rat's-tail, and is thus known: When you ſee from the hind part of the fetlock, up along the nerves, a kind of line or channel that ſeparates the hair to both ſides, this is a rat's-tail; and in ſummer there appears a kind of ſmall dry ſcab along this channel; and in winter there iſſues out a humidity like the water from the legs. A horſe may work notwithſtanding this diſorder, for it ſeldom lames him; it ſometimes occaſions a ſtiffneſs in the legs, and makes them trot like foxes, without bending their joints. The hind-legs ſhould be lean, clean, flat, and ſinewy; for if fat, they will not bear labour, if ſwelled, the greaſe is molten into them; if ſcabbed above the paſterns, it is the ſcratches, and if he hath chops under his paſterns, he hath what is generally called the rains. If he has a good buttock, his tail cannot ſtand ill, but it will be broad, high, flat, and couched a little inward.

Having with care examined the horſe, let him be run in hand a gentle trot; by this you will ſoon perceive if he is lame or not. Make the man lead him by the end of the bridle, as in this caſe you cannot be deceived by the man's being too near him. The far fore-leg, and near hind-leg, or the near fore-leg, and far hind-leg, ſhould move and go forward at one and the ſame time; and in this motion, the nearer the horſe taketh his limbs from the ground, the opener, the evener, and the ſhorter is his pace.

If he takes up his feet ſlovenly, it ſhews ſtumbling or lameneſs; to tread narrow, or croſs, ſhews interfering,

or failing; to ſtep uneven, ſhews wearineſs, and if he treads long, you may be apprehenſive he forges; by which I mean, that when he walks or trots, he ſtrikes the toes of his hind feet againſt the corners of his ſhoes before, which occaſions a clattering noiſe as you ride; and this proceeds generally from the weakneſs of his fore-legs, he not having ſtrength in them to raiſe them up ſufficiently quick to make way for the hind ones. A horſe of this kind is not near ſo ſerviceable as the horſe exempt from it, and the dealers, to get rid of him, will make abundance of pretences: if he has been juſt ſhoed, they will ſay the farrier has put him on too long ſhoes; if his ſhoes are old, they will tell you he is juſt come off a long journey, and is much fatigued; you muſt not therefore be over credulous to any thing a jockey or dealer affirms, for what they ſay in this manner, is too often with intent to deceive; and it is very certain that a horſe who forges can never be ſure-footed, any more than one who has tottering or bow-legs.

On his being mounted, ſee him walk. Obſerve his mouth, that he pulls fair, not too high, nor bearing down: then ſtand behind him, and ſee if he goes narrower before than behind, as every horſe that goes well on his legs goes in that manner. Take notice that he bruſhes not by going too cloſe; a certain ſign of his cutting, and tiring in travelling. Have nothing to do with that horſe who throws his legs confuſedly about, and croſſes them before: this you may obſerve by ſtanding exactly before or behind him, as he is going along. In his trot he ſhould point his fore legs well, without clambering, nor yet as if he were afraid; and that he throws well in his hind-legs, which will enable him to ſupport his trot, and ſhoot his fore-parts forwards.

In his canter, obſerve he does not fret, but goes cool in this pace; and in his gallop, he ſhould take his feet nimbly from the ground, and not raiſe them too high, but that he ſtretcheth out his fore-legs, and follows nimbly with his hind ones, and that he cutteth not under his knee (which is called the ſwift or ſpeedy cut) that he croſſes not, nor claps one foot on another, and ever leadeth with his far fore-foot, and not with the near one. If he gallops round, and raiſes his fore-feet, he may be ſaid to gallop ſtrongly, but not ſwiftly; and if he labours his feet confuſedly, and ſeems to gallop painfully, it ſhews ſome hidden lameneſs; for in all his paces, you ſhould particularly obſerve that his limbs are free, without the leaſt ſtiffneſs.

After he has been well exerciſed in thoſe different paces, it is your time to examine for an infirmity, not eaſily diſcovered, and that is, what I call tottering legs; you cannot perceive it till after a horſe has galloped for ſome time, and then, by letting him reſt a little, you will ſee his legs tremble under him, which is the diſorder I mean; how handſome ſoever the legs of ſuch a horſe may be, he never can ſtand well on them; you are, therefore, not to mind what the jockey ſays, when he talks of the beauty of the limbs, for if you oblige him to gallop the horſe, or fatigue him pretty much, (which is commonly done to try the creature's bottom) you will in all likelihood diſcover this defect, unleſs you ſuffer the groom to gallop him to the ſtable door, and put him up in a moment, which he will certainly endeavour to do, if he is conſcious of it, while the maſter has another horſe ready to ſhew you, in order to take off your attention from what he is afraid you ſhould ſee.

As to the defects of horſes, and parts moſt likely to defect, here follows a catalogue of the principal, as given by Mr. LAWRENCE; which a man ought to have in his mind's eye, whilſt about to make a purchaſe; more particularly, if unattended with warranty: viz.

Head ill ſet on, or too long, eyes, age, wolf's teeth, bladders in the mouth, gigs, glanders, jogged under the jaw, hide-bound, broken-wind, crib-biter or ticker, run-a-way, reſtiff, vicious, neck-reverſed, or cock-throppled, ewe or deer-necked, ſhoulder ſtraight and heavy, cheſt narrow or wide, high on the leg, broken knees, round legs, and greaſe, windgalls, ſinews down, ſplent, oſſet, ſpeedy cut, knock, mallenders, hurts in the joints, toes turned out or in, feet ſoft or hard, large, ſmall, or deep, quittor, falſe quarters, ring-bone, ſandcrack, groggy, founders, thruſhes, corns, high-goer, daiſey-cutter, fore-low, ſhallow girth, hollow-backed, bream-backed, long-backed, broken-backed or megrim, light carcaſe, burſten, ragged-hipped, droop-arſed, *Dutch* or round buttocks, hipſhot, ſtiffled, lame in whirlbone, ſpavins, bone and bog, curb, thoroughpin, capped hocks, or hough-boney, fallenders, ſickle-hammed, cut behind, hammer and pinchers, or over-reach, wrong-end firſt, ſtring-halt.

RUN: to run a horſe, is to put him to his utmoſt ſpeed, a furious, quick, and reſolute gallop, as long as he can hold it.

Some take running for a gallop, but in the academies it ſignifies as above.

RUNNING-HORSE; if you would chuſe a horſe for running, let him have all the fineſt ſhapes that may be, nimble, quick, and fiery, apt to fly with the leaſt motion: long ſhapes are ſufferable, for though they are a ſign of weakneſs, yet they are alſo tokens of a ſudden ſpeed.

As for the ordering of ſuch a horſe, let him have no more meat than will ſuffice nature, drink once in twenty-four hours, and dreſſing every day, once at noon only. Give him moderate exerciſe morning and evening, airings, or the fetching in of his water; and let him know no other violence than in his courſes only.

In caſe he is very fat, ſcour him often, if of reaſonable caſe, ſeldom: if lean, then ſcour him with a ſweet maſh only, and let him ſtand dark and warm, having many clothes and much litter, and that of wheat-ſtraw only.

He ought to be empty before you run him, and his food the fineſt, lightest, and quickeſt of digeſtion that may be.

Thoſe ſweats are more wholeſome that are given abroad, and the coolings moſt natural that are given before he comes to the ſtable: his limbs muſt be kept ſupple

ſupple with cool ointments, and let not any hot ſpices come into his body.

If he grows inwardly, waſhed meats are moſt proper; if looſe, give him wheat ſtraw in more abundance; and be ſure to do every thing neat and cleanly about him, which will nourith him the better. *See* HORSE-RACING.

RUNNING KNOTS; theſe ſort of knots may be otherwiſe called ſlipping knots, collars, *&c.* which are uſed in taking of hares and conies; in the ſetting of which, rub them over (as alſo the handles and ſoles of your ſhoes) with the croſlets of a hare, or ſome green wheat, or the like, for they are of ſo quick a ſmell, that you will elſe be diſcovered; and in placing the collar, make the leaſt alteration imaginable, for old hares are very ſubtle, and therefore it will not be amiſs to plant a ſecond running knot flat on the ground, juſt under that which you ſpread abroad, by which means the hare may be taken by the hinder parts; this ſecond being intended to ſurpriſe him by the foot, and one or the other will ſeldom fail.

But as it is the nature of a hare, being once taken in any of theſe knots, to pull with all his ſtrength, and ſeldom or never turns about like a rabbit to bite off the hold-faſt, you ſhould therefore uſe wire, double twiſted.

Set your knots thus, *viz.* Take a little ſtick twice as big as your thumb, and about a foot long; at the upper end make a hole big enough to receive the tip of your little finger, then prepare your collar of ſtring, packthread, or wire; if of the latter, tie the end thereof to any ſtrong packthread, draw it through the hole of the ſtick, and faſten it to ſome ſtrong bough, which muſt be bent down towards the ſtick.

After this put a ſhort peg in it about an inch long, ſo that the branch being let go may not ſlip your knot, but may ſtand bent; that being done, open your collar to the largeneſs of the meſh, and if hares or rabbits be taken, and they turn about to bite off their chain, they preſently rub out the little peg, whereupon the bough flies up and ſtrangles them.

RUNNING THRUSHES, Mr. LAWRENCE ſays, is a natural defect, and of courſe, in ſuch caſe, a remedy to repel the diſcharge would ſoon be found worſe than the diſeaſe: but there is a baſtard ſpecies of this genus, acquired by bad grooming, and ſuffering particles of grit and dirt to lodge in the aperture of the frog; another more frequent cauſe ſtill, is the cutting and trimming, or rather deſtroying the frog, by common ſhoers, whence the cleft is diſtended, and an acrimonious diſcharge enſues. The remedies are frequent ablutions, with a good lather of old ſtrong ſoap, detergents, and ſtyptics; and, above all, encouraging the full natural growth of the frog, from which not an atom ſhould be pared, excepting what is ragged or decayed. The diſeaſe is a fœtid diſcharge from the frog, the aperture of which in conſequence appears moiſt, the horn perhaps deſtroyed. It indicates a ſtrong, full habit, and hard feeding, and has been well compared by BARTLET to the copious excretion of ſweat from the human feet, which it would be very dangerous to repel. To talk of curing running thruſhes, is merely to amuſe. Horſes moſt liable to them will always have tender heels, and ſhould be ridden with bar ſhoes.

It is beneficial, in general, to take off the ſhoes of a horſe which is neceſſitated to ſtand long in the ſtable, and does no work; the growth or the cruſt, and the enlargement of the heels, is thereby promoted.

RUPTURE, INCORDING, OR BURSTENNESS IN A HORSE, is when the rim, or thin film or caul which holds up the entrails, is broken, or over-ſtrained, or ſtretched ſo that the guts fall down.

This comes either by ſome blow, or by ſome ſtrain in leaping over a hedge, ditch, or pale, by teaching him to bound when he is too young; or by forcing him when he is full to run beyond his ſtrength: ſometimes by ſudden ſtopping upon uneven ground, where by his ſtraddling and ſlipping, his hinder feet tear the rim of his belly, ſometimes from being ſtaked or gored by oxen, and various other accidents. GIBSON ſays he has known inſtances of the belly being ruptured, from too deep an inciſion for the rowel. In a rupture, a portion of omentum or caul, or of the guts themſelves, is forced through the muſcles of the belly at the navel, or through the rings into the ſcrotum or cod. The tumour, when not too large, will return, on being preſſed, as if it were merely flatulent, and the rupture or chaſm may be felt. It is eaſy to conceive, that ſuch a defect is incurable, except poſſibly in a very ſlight caſe, and a very young ſubject; the intention muſt be to palliate, to render the animal as uſeful as poſſible, and as comfortable to itſelf. In a recent caſe, bleed, and give emollient and oily clyſters, boiled barley, malt maſhes, nitrated water. Foment twice a day with camphorated ſpirits and vinegar, warm; and poultice with oatmeal, oil, and vinegar. Uſe an aſtringent embrocation, made as follows:

Take the beſt diſtilled vinegar; aqua vegeto, made with one pint of water, and three tea-ſpoons full of GOULARD's extract of Saturn, two ounces of oil of turpentine: mix. A quantity of this ſhould be kept cloſe corked for ſtable uſe, as it improves by keeping: its ſtrength may be varied by the increaſe or diminution of the quantity of GOULARD's extract. Uſe this for ſome time afterwards.

The ſigns to know it, are his forſaking his meat, and ſtanding ſhoring and leaning on the ſide where he is hurt.

If on that ſide you ſearch with your hand, between his ſtones and his thighs upwards, towards the body, and ſomewhat above the ſtone, you may find the gut itſelf big and hard in the feeling, whereas on the other ſide you will find no ſuch thing.

For the cure: Take common pitch, dragon's blood, powder of bole ammoniac, maſtic, and frankincenſe, of each one ounce; of which make a plaiſter and lay it to the horſe's loins, and upon the rupture, and let it remain till it falls off of itſelf, and it will cure him; yet conditionally that you give him ſome ſtrengthening things inwardly.

Let his diet be ſcalded bran or malt, or boiled barley, that his bowels may be emptied as much as poſſible. Nothing will be ſo effectual, as a ſuſpenſion in a bandage, could it conveniently be faſtened on. Should there

there be an external wound, and the skin be divided, in course the protruded intestine must be carefully returned, and the wound healed with spirituous and balsamic application. *See* Article STONE-SWELLING.

RUT, (in Hunting) the venery or copulation of deer. *See* DEER.

RYE, (in Hawks) a disease which proceeds from sudden cold, after heat and labour; it produces a continual stoppage in the head, which in a short time causes the frounce, or a perpetual dropping humour, and of a very difficult cure.

In order to prevent this disease, hawks should not be set in any cold place, as in a damp room; but on a warm perch, which at such time should be a little higher than is usual.

The cure: If she be taken in time, is to give her rest, and keep her warm, and by orderly feeding according to these directions:

Let her food be opening, and of easy digestion, hot and moist, and it will be proper to give her sometimes at her meals, two or three blades of mace bruised; you must also give her constantly with her meat, a confection of clarified butter with rue, saffron, and sugar-candy in powder, finely made up into pellets; give her also good store of plumage, and keep her warm; these things will loosen and open her, and cause her to throw with her head, and when she once comes to do so, then blow the juice of daisy-roots, with a quill or straw, into her nares an hour before you feed her, and also blow the juice of sage into her nares thrice a week in the morning; these are both good to purge away tough, slimy, corrupted, congealed filth, the body being predisposed to evacuate it.

The cold or rye in the head, being apt in time to fall into her eyes, you must in that case apply the remedy for curing the rye, which is the cause thereof; but if it has caused any film or web in the eye, then take some fine ginger finely scraped, and blow it into the eye with a quill; it will break the film, and then the juice of ivy will be sufficient.

SACCADE, is a jerk more or less violent, given by the horseman to the horse, in pulling or twitching the reins of the bridle on a sudden, and with one pull, and that when a horse lies heavy upon the hand, or obstinately arms himself.

This is a correction used to make a horse carry well, but it ought to be used discreetly, and but seldom.

SACER, (in Ornithology) the *English* name for the blue-legged falcon, with a dusky ferrugineous back. *See* FALCON.

SADDLE, in the menage, a stuffed seat, laid on the back of a horse, for the convenience of the rider. The origin of the saddle is not well known. GOROP. BECANUS attributes its invention to the *Solii*, a people among the ancient *Franks;* and hence, says he, came the Latin *sella*, saddle. It is certain the ancient *Romans* were unacquainted with the use either of saddle or stirrups; whence GALEN observes in several places, that the *Roman* cavalry, in his time, were subject to several diseases of the hips and legs, for want of having their feet sustained on horseback. And long before him, HIPPOCRATES had noted, that the *Scythians*, who were much on horseback, were frequently troubled with defluxions in their legs, because of their hanging down. The first time we hear of saddles among the *Romans* was anno 340, when CONSTANTIUS, endeavouring to deprive his brother CONSTANTINE of the empire, made head against his army, and, entering the squadron where he himself was, threw him off his saddle, as we are informed by the historian ZONARAS. Before this time, they made use of square pannels; such as we see in the statue of ANTONINUS in the capitol. The use of saddles was first established in *England*, by a law of HENRY VII. whereby the nobility were obliged to ride on saddles. It is much later that the *Irish* have taken to it. There are various kinds of saddles; as the hunting-saddle, which is composed of two bows, two bands, fore-bolsters, pannels, and saddle-straps: and the great saddle has, beside these parts, corks, hind-bolsters, and a troussequin. The pommel is common to both. A horseman, that would sit a horse well, ought always to sit on his twist, and never on his buttocks, which ought never to touch the saddle; and, whatever disorder the horse commits, he ought never to move above the saddle. There are several sorts of saddles in use, *viz.*

1. The running saddle; which is a small one with round skirts.

2. The *Burford* saddle, which hath the seats and the skirts both plain.

3. The pad-saddle; of which there are two sorts, some were made with burs before the seats, and others with bolsters under the thighs.

4. A *French* pad-saddle; of which the burs come wholly round the seat.

5. The portmanteau-saddle; that has a cantle behind the seat, to keep the portmanteau or other parcel off from the back of the rider.

6. A war saddle; which has a cantle and a bolster behind and before; also a fair bolster.

7. The pack-saddle.

As for the several parts of a saddle, and the description of them, they are to be found under the several heads, as they fall out in their alphabetical order, as BARS, BUCKLE, CIVET, CRUPPER, BUCKLE AND STRAPS, GIRTH-WEB, *&c.*

SADDLE-GALL; when a horse's back is hurt or fretted by the saddle, it may be cured by bathing the part with urine, or warm wine; and sometimes when the sore is large, with the second water, strewing over it the powder of an old rope, or flax, and eating away the proud flesh with vitriol, or colcothor.

SAL POLYCRESTUM, a peculiar medicine for horses, and is prepared as follows:

Set a crucible, or iron pot in the midst of a heap of fine coals, till it is all over red hot, even at the bottom; then cast into it with a spoon, a mixture of sulphur, or brimstone and fine saltpetre, both in powder, of each an ounce, which will immediately break out into a flame.

When the flame disappears, stir the matter at the bottom with an iron, to cause the fire to penetrate it more effectually; then cast in more of the same mixture by spoonfuls, stirring the matter as before, after the

the flame has disappeared, between every spoonful, and continue to do the same till the whole mixture is cast in.

Then cover the crucible, and lay coals on the top, and every where round the sides, suffering it to cool of itself; when it is cold, pound the matter to powder, which if it be prepared rightly, will be of a pale rose-colour, or else white, when the saltpetre is not very pure; but if it be greyish, it is bad.

Two pounds of mixture will yield three quarters of a pound of this salt: this salt will dissolve in water, and grow red in the fire without wasting.

It is so very cooling, that it must not be given alone, but corrected with half an ounce of juniper-berries to an ounce of the salt; or with scrapings of nutmeg in moistened bran.

If the horse will not eat it so, infuse it all night in a quart of wine, and give it him lukewarm fasting.

And for a beating of the flanks, and a baked dryness of his dung, three or four clysters, with two ounces of sal polycrestum to each, will be very serviceable.

SALENDERS, are cracks in the bending of the hough. The disease is the same as the melanders, which is only similar cracks in the bending of the knee. As is the disease, so is the cure, alike in both.

SALMON, is a large fish, always breeding in rivers that are not brackish, yet discharge themselves into the sea, spawning commonly in *August*, which become samlets in the spring following.

The milter and spawner having both performed their natural office or duty, betake themselves to the sea; and some tell us, they have known that when they have grown so impatient, that clapping their tails to their mouths, with a sudden spring they have leaped clear over a wear or any other obstacle which stood in their way; and some by leaping short have been by that means taken.

If they happen to meet with such obstructions that they cannot get to the sea, they become sick, lean, and pine away, and die in two years time.

But if they spawn in the mean time, from thence proceeds a small salmon, called a skegger, which will never grow large.

It is the sea that makes them grow large, but the fresh rivers make them grow fat; and by how much the farther they are from the sea up the river, by so much the fatter they grow, liking their food there the better.

From a samlet (which is but little bigger than a minnow) they grow to be salmon, in as short a time as a gosling will grow to be a goose.

SALMON-FISHING; they bite best at about three o'clock in the afternoon, in the months of *May*, *June*, *July*, and *August*, if the water be clear and some small breeze of wind be stirring, especially if the wind blows against the stream, and near the sea.

A salmon is catched like a trout, with worm, fly, or minnow, and the garden-worm is an excellent bait for him, if it be well scoured and kept in moss twenty days, in which time the worms will be very clear, tough, and lively.

The salmon hath not his constant residence like the trout, but removes often, coveting to be as near the spring head as may be, swimming generally in the deepest and broadest parts of the river, near the ground.

There is a particular manner of fishing for the salmon, with a ring of wire on the top of the rod, through which the line may run to what length is thought convenient, having a wheel also near the hand.

Some say there is no bait more attractive, and more eagerly pursued by the salmon and most other fish, than lob-worms scented with the oil of ivy-berries or the oil of polypody of the oak, mixed with turpentine; and that assa-fœtida is also incomparably good.

Take the stinking oil, drawn out of polypody of the oak by a retort, mixed with turpentine and hive-honey, and anoint your bait therewith, and it will doubtless draw the fish to it.

The artificial fly is a good bait for a salmon, but you must then use a troll as for the pike, he being a strong fish: as the salmon is a large fish, so must your flies be larger than for any other, with wings and tails very long.

Though when you strike him, he will plunge and bounce, yet he does not usually endeavour to run to the length of the line, as the trout will do, and therefore there is less danger of breaking your line.

If you would angle for salmon at ground, take three or four garden-worms, well scoured, and put them on your hook at once, and fish with them in the same manner that you do for trouts.

Be sure to give the salmon (as well as all other fish) time to gorge the bait, and be not over hasty, unless your bait be so tender it will not endure nibbling at.

SALMON-PEEL, is a fish that agrees with the salmon in the red colour of it's flesh, and perhaps also in kind: of these there is so great abundance in some rivers in *Wales* that they are very little valued, and the fishermen sometimes throw them to the hogs.

SALMON-PIPE, an engine for catching salmon and such like fish.

SALMON-SEWSE, the young fry of salmons.

SALTS (in Horsemanship) the leaping and prancing of horses, a kind of curveting.

SAMLET, OR BRAMLIN, never exceeds six or seven inches in length, and has teeth not only in the jaws but in the palate and tongue. The body is covered with small scales like a trout; the back is full of black spots, and on the sides there are five or six impressions of such form as though they had been made with fingers; hence some give them the title of Fingerins; in every one of these pits there is generally a red spot. Their bellies are white, and their tail is forked like a salmon: but what is most remarkable in this fish, and which is exceeding strange, is, that they are all males.

SCAB OR ITCH, a distemper in horses, proceeding from their being over-heated, and of corrupt blood; to cure which you must let him blood and purge him: for this take of the root of wild cucumber, and reduce it to powder; infuse it in a pint and a half of white wine for three hours, and give it him to drink, and he will soon be well.

If the distemper appears outwardly rub all the parts of

of the horse's body that are affected, with ointment called *Ægyptiacum*, or *Unguentum Apostolorum*.

SCABBARD, is the skin that serves for a sheath or case to a horse's yard.

SCABBED HEELS IN HORSES, a distemper, called also the frush.

Sometimes the frush falls away by degrees, by reason of an eating scab which penetrates to the quick, and causes so great an itching that the horse cannot walk without halting; but these sores are not so dangerous as they are troublesome.

Before the horse grows lame, his feet will stink like old rotten cheese, so that you easily discover the nature of the grief, since you cannot possibly come into the stable without smelling it; and besides the horse will sometimes beat the ground with his feet, by reason of the intensenes of the itching.

To begin the cure, you must pare the frush as near as you can with a buttress, and having quenched a good quantity of unslaked lime in vinegar, and strained it, boil it, and throw it boiling hot upon the frush: after you have done this, apply a restringent charge of powder of unslaked lime, mixt with the second water, or the black restringent, made of soot, vinegar, and whites of eggs.

The following ointment, called the *Countess's* ointment is also very useful in these cases: in half a pint of aqua-vitæ boil a pound of honey in a clean glazed pot, over a gentle fire, stirring it till the honey is thoroughly heated and incorporated with the aqua-vitæ; then add verdigris, *Venetian* borax, and gall, of each two ounces, searsed through a fine searse, with two ounces of white vitriol pounded.

Boil these all together over a small coal fire, stirring them till they be well incorporated, and keep the ointment for use; this will cure in three or four applications, but the dressing must be kept on with splents.

If the disease return after the sore has been cleansed, then apply the following ointment, which is called the neat-herd's ointment.

Take burnt-alum and borax in fine powder, of each two ounces; white vitriol and verdigris, of each four ounces, very finely powdered; put these into a very clean pot, with two pounds of honey, and boil them over a clear fire, stirring all well together, till they be well incorporated; when the ointment is cool, stir two ounces of strong aqua-fortis; keep it well covered for use, and stir it once a day, for the first six days.

This ointment will heal them, though the internal cause can hardly be removed; and besides, the horse may be let blood in the toe, from time to time.

For preservation, the frush ought to be pared often, and the place rubbed once or twice with the second water, which will waste away part of the corruption, and dry up the roots of the scabs so effectually, that they will not break forth again for a long time; then bathe the feet daily with the following water:

Boil alum and white vitriol, of each a pound and a half, in a gallon of water, till it be wasted to two quarts at least; when you perceive the itching to be gone, melt tar, or black pitch, upon the scabs, and keep the horse's feet well pricked, and free from dust, or any other filth that may dry them.

Or take of rectified spirits of wine, and the sharpest vinegar, each two ounces; tincture of myrrh and aloes, one ounce; of *Ægyptiac* ointment, half an ounce; mix them well together.

After washing the part with this mixture, dip a pledgit of tow into it, and secure it in the best manner you can.

During the use of this, it will be necessary to give a purge once in six or eight days, and in the intermediate days the diuretic medicines proposed for the grease, *which see*.

SCATCH-MOUTH; is a bitt-mouth, differing from a cannon-mouth in this, that the cannon is round, and the other more oval.

That part of the scatch-mouth which joins the bitt to the branch, is likewise different; a cannon being staid upon the branch by a fonceau, and a scatch by a caperon, which surrounds the banquet; the effect of the scatch-mouth is somewhat bigger than that of the cannon-mouth, and keeps the mouth more in subjection.

Commonly your snaffles are scatch-mouths.

SCENT, is an effluvium continually arising from the corpuscles that issue out of all bodies; and, being impregnated with the peculiar state and quality of the blood and juices of that particular animal from which they flow, occasions the vast variety of smells or scents cognizable by the olfactory nerves, or organs of smelling. Hence the reason why one person differs from another in scent, and why a dog will trace the footsteps of his master for an hundred miles together, follow him into any house, church, or other building, though surrounded by ten thousand. And, when the faithful animal has thus diligently sought out and recognized his master, he is seldom willing even to trust the evidence of his own eyes, until, with erected crest, he has taken a few cordial sniffs, to convince himself he is right. Hence also we perceive how a pack of hounds are enabled to pursue the hare, fox, stag, or any other animal, they are trained to hunt, across the scent, and amidst the society of others of the same species, without being diverted from the pursuit of that self-same animal they had first on foot. And hence too we discover how it is possible for birds and beasts of prey to be directed to their food at such vast distances; for these corpuscles, issuing from putrid bodies, and floating in the air, are carried by the wind to different quarters; where striking the olfactory nerves of whatever animals they meet in their way, immediately conduct them to the spot; and it is by this means the small-pox, measles, putrid fevers, and all epidemic complaints, are communicated, and the plague and pestilence conveyed from one place to another. It matters not how much the effluvia may be gone off, so as enough remains to irritate the olfactory organ; for, whether it be bird or beast, they try the scent in all directions, till at length they discover that which is stronger and stronger in proportion as they proceed, and this nature has taught them to know is the direct and

and obvious road to their prey, and prevents them from following a contrary course, which is naturally weaker and weaker, and what in hunting is termed heel. This observation is confirmed by the increased eagerness we perceive in all animals, the nearer they approach the object of pursuit; as we see hounds and spaniels, in hunting and shooting, are the most earnest, in proportion as the scent is recent, and as they draw nearer to the game. The same thing amongst quadrupeds, whether wild or domestic, directs the male to the female that is in season for love; and hence we see the dog, the boar, the bull, and the stallion, when turned loose, apply their nostrils to the ambient air, and proceed accordingly. By the same medium the vermin which infest our dwellings, know how to direct their operations, whether to undermine walls, eat through solid boards, cross rivers, or climb spouts; which shews how much stronger the faculty of smelling is possessed by the brute species than by the human; wisely ordained by nature, to enable them to seek their food, and propagate their species; but for which they would often perish, or have long since became extinct.

There are wonderful instances of some animal carcases, which, though slaked with lime, and buried ten feet under ground, have sent forth so strong a scent, as to have attracted dogs to the spot, that eagerly endeavoured to dig away the earth to get at them. And an instance happened only a few years since at *Petersfield* in *Hampshire*, where an unfortunate female, having privately delivered herself of two children, went and buried them in a deep hole in an adjoining field; but within three days some dogs were attracted to the spot by the scent, dug them up, and partly devoured them, before the shocking circumstance was discovered. No wonder then a pack of hounds which have caught the scent of a polecat or weasel, will pursue them into the thickest forest, and assemble round the very tree up the trunk of which the creature hath run for shelter; or that blood-hounds, as in times of old, should trace out fugitives and robbers in subterraneous caverns, in trees, caves, or forests, or in clefts of inaccessible rocks, of which instances are given by the most reputable historians. It is however to be remarked, that, as all animals hunt for and pursue their prey by its scent, so they seem instinctively to know that they themselves are hunted and pursued by means of the scent issuing from their own bodies.

The jackal appears to have the gift of scent equal to a dog, of which it seems to be a wild species. They go in packs of forty, fifty, and even two hundred, and hunt like hounds in full cry from evening to morning. They destroy flocks and poultry; ravage the streets of villages and gardens near towns; and will even destroy children, if left unprotected. They will enter stables and out-houses, and devour skins, or any thing made of that material. They will familiarly enter a tent, and steal whatsoever they find from the sleeping traveller. In default of living prey, they will feed on roots and fruits, and even on the most infected carrion: they will greedily disinter the dead, and devour putrid carcases. They attend caravans, and follow armies, in hopes that death will provide them a banquet. Their voice naturally is a howl. Barking, Mr. PENNANT observes, is latently inherent, and in their state of nature seldom exerted: but its different modifications are adventitious, and expressive of the new passions and affections gained by a domestic state. Their howlings and clamours in the night are dreadful, and so loud that people can scarcely hear one another speak. DELLON says, their voice is like the cries of a great many children of different ages mixed together: when one begins to howl, the whole pack join in the cry. This animal is vulgarly called the lion's provider, from an opinion that it rouzes the prey for that quadruped. The fact is, every creature in the forest is set in motion by the fearful cries of the jackals; the lion, and other beasts of rapine, by a sort of instinct, attend to the chase, and lie in wait, to seize such timid animals as betake themselves to flight at the noise of this nightly pack.

From a contemplation of nature in general, it will appear, that there is an occult instinctive principle infused into the whole race of animal beings, whereby they are unerringly led on to the propagation and preservation of their species; yet so that no one shall become too numerous for the existence of another, upon which they prey, or with which they live in a continual state of warfare. We may likewise remark, that the more similarity we discover among brutes, the more amicable we find them towards each other, because the scent of their bodies have an agreement pleasing to their sensitive faculty, without exciting the appetite; but for which the same species would incessantly devour each other, and the purposes of creation would be annihilated by the operation of its own works.

SCIATICA OR RHEUMATISM. A disorder horses are liable to; to cure which take half an ounce of oil of turpentine, and two ounces of camphorated spirits of wine, with which rub the part well, and let the horse have rest for a fortnight, and the complaint will be removed.

SCOWRINGS FOR HORSES; are those gentle, wholesome, and natural medicines, which, not stirring up any great flux of humours, only keep the body clean from such as are apt to rise or grow, being every way as wholesome in health as sickness, and may most properly be termed preparatives or preparers of the body, to entertain stronger remedies.

There are several kinds of them prescribed, but the most gentle and natural is grass, which you should give him for fifteen days together, after which time it will fatten him.

The best grass for this purpose, is that of a new mown meadow, for that will rake his guts very well, and not fatten; but if you would have him fatten, you must put him into some other pasture, which has not been mown, next to this forage, *i. e.* only the blades of green corn, as wheat, rye, barley, *&c.* given him for seven days and no more, will cleanse and cool his body; the like also will the leaves of fallow, the elm, or green thistle, do.

A mash of malt, taken in a larger proportion than is

directed under that head, mixed with a handful or or more of beaten hemp-feed is alſo a gentle medicine in this caſe.

Other ſorts of ſcowrings there are; particularly after ſweat, take half an ounce of roſin, or jalap in powder; as much of cream of tartar powdered, as alſo of liquorice in powder; make them into balls with freſh butter, of about the bigneſs of a ſmall walnut, and give him four or five at a time in a hornful of beer, one after another.

One of a ſtronger nature is to mix a handful or two of hempſeed with oats, or take a handful of the powder of dried box leaves, and as much of brimſtone, and mix it amongſt his provender; theſe two purge the head, ſtomach, and entrails, will kill all kind of worms, and dry up phlegm.

Another preſcription is, to take ſalad-oil half a pint; a pint of new milk from the cow; brew it together, and give it him lukewarm; or elſe take a pint of muſcadine and half a pint of ſalad-oil, and give it him to drink; or the ſame quantity of oil and ſack, mixed together, and give it lukewarm; this has much the ſame effect as the others, and is good for any manner of cold, ſtopping the wind-pipe; and if you add a quantity of ſugar-candy thereto, it will be the better.

But for ſuch horſes, whoſe greaſe muſt neceſſarily be melted, as running, hunting horſes, and the like, firſt take twenty raiſins of the ſun, with the ſtones picked out of them, ten figs ſplit round-wiſe, boil them in two quarts of running water, till the water be conſumed and thickened: then take powder of liquorice, anniſeed, and ſugar-candy, finely ſearſed, and mix it with the raiſins and figs, ſtamping and working them together till they become a ſtiff paſte, then making round balls thereof, of a tolerable bigneſs, roll and cover them all over with freſh butter, and give as many of them to the horſe as you ſhall think ſuits his ſtrength, provided the day before you give him ſuch exerciſe as will raiſe his greaſe, and that immediately before you give him the medicine, you alſo warm him thoroughly, that the humours being again ſtirred up, it may the more effectually work.

Another very good receipt to purge a horſe from all greaſe, glut, or filthineſs within his body, is to take three ounces of anniſeed, ſix drachms of cummin-ſeed, a drachm and an half of cathamus, an ounce and two drachms of fenugreek ſeed, an ounce and a half of brimſtone, all which beat to a fine powder, and ſearſe them; then take a pint or two of ſalad oil, a pound and a half of honey, and of white wine two quarts; and this with as much fine wheat flour as is ſufficient; make all into a ſtiff paſte, and knead and work it well, which you are to keep in a gallipot, cloſe covered, for your uſe.

Now when the horſe has been hunted, and is at night, or in the morning, very thirſty, take a ball of it as big as a man's fiſt, and diſſolve it in a gallon or two of cold water, and it will make the water look as white as milk; then give it him in the dark, leſt the colour diſpleaſe him; if he drinks it, then feed him; if he does not, let him faſt till he takes it, which certainly he will do at twice or thrice offering; and when he has once taken it, he will refuſe all other drink for it; and you cannot give him too much nor too often of it, if he has exerciſe.

For another ſort of ſcowring, when others will not work: take a quarter of a pound of ſweet butter, as much of Caſtile-ſoap, and half an ounce of aloes; beat them together, and add two ſpoonfuls of beaten hempſeed, and of roſin half a ſpoonful; of ſugar-candy an ounce, bruiſed; work them all into a paſte, and immediately after his heat, give it him in balls, having firſt warmed him and ſtirred up the greaſe and foulneſs within him.

SCRATCHES IN HORSES, a diſtemper of ſeveral ſorts and kinds, diſtinguiſhed by various names, *viz.* crepances, rat-tails, mules, kibes, pains, *&c.* being no other than the ſcratches, which are certain dry ſcabs, chops, or rifts, that breed between the heel and paſtern joints, and do many times go above the paſtern, to the very hoof of the hinder legs, and ſometimes are upon all four legs, though this is not very common.

They proceed from dry melancholy humours, which fall down upon the horſe's legs, or from the fuming of his own dung lying under his heels, or near them: ſometimes by his heels not being cleaned, eſpecially after a journey or hard labour; they not being rubbed dry from the ſand and dirt, after he is brought in from watering, which burns and frets them, and ſo cauſes ſwellings, and thoſe ſwellings the ſcratches.

Sometimes they proceed from a corruption of blood, after great heats; taken now and then by being bred in fenny, marſhy, watery grounds; or laſtly, by over-hard riding, whereby his greaſe being melted, it falls down and ſettles in his paſtern and fetlock, and theſe produce this ſorrance.

The ſigns to know this diſtemper, are the ſtaring, dividing, and curling of the hair. It begins firſt with dry ſcabs in the paſtern joints, like chaps or chinks, in ſeveral ſhapes and forms; ſometimes long-ways, ſometimes downright, and at other times over-thwart, which will cauſe the legs to ſwell and be very gouty, and run with fretting, watery matter, and offenſive ſtuff, which will make him go lame at firſt ſetting out, that he will be hardly able to go.

For the cure you muſt be ſure to keep his legs from wet, all the while you uſe any application to them; clip away the hair very cloſe from his heels, or it will poiſon his legs; and before you apply any remedy to them, ſcrape off the ſcabs, and waſh the blood off with chamber-lye, and ſalt of brine.

There are a multitude of receipts for this purpoſe, but I ſhall preſcribe only ſome of the chief.

Sometimes indeed the ſcratches prove very obſtinate, in which caſe the following ointment ſhould be uſed: obſerving that if any cavities ſhould be formed, to lay them open; for it is in vain to expect a cure unleſs you dreſs the wound to the bottom.

Take of *Venice* turpentine, four ounces; of crude mercury, one ounce; incorporate them well together by rubbing them a conſiderable time in a glaſs or iron mortar; and then add to the mixture honey and ſheep's ſuet, of each two ounces.

Anoint the parts affected once a day; and if the horſe

horse be full of flesh, it will be necessary to bleed and purge.

1. Take brimstone finely powdered, mix it with sweet butter, and anoint the part with this once a day.

2. Take a handful of the tender tops of elder-buds and as many bramble-berries, and before they are ripe, and when they are red, bake them in two quarts of wort, and about the quantity of an egg-shell of alum, with which water, very hot, wash the sorrance twice a day.

3. Let the horse blood in the shackle-veins, spur-veins, and the fore-toe veins, only let it be three days between the bleeding of the one toe and the other; then rub the sores till they be raw and bleed, with a thin hay rope.

Having boiled half a pound of alum, in a quart of stale urine, and a quart of strong brine, till they come to a quart, wash the sores well with the liquor; afterwards having procured the sperm of frogs, in the month of *March*, and put them into a pot, and let it stand for a week, in that time it will look like oil: spread this, with what round things appear in it, on a cloth, and bind it on the sores, repeating this several times. This has cured, when the disease has been thought incurable.

But the best of all medicines, and which scarcely ever fails to cure the scratches, is, if the horse be of a strong body and good stature, give him an ounce and a half of the best aloes you can get, pound it to a very fine powder, and mix it with very good butter, working and mixing it very well with a knife, then divide it into three parts, every one of which cover again with fresh butter, and make them as big as a good middling wash-ball; give the horse one of these in the morning fasting, upon the point of a stick, and a little while after ride him to warm his body, which will cause them to work the better: then bring him into the stable and keep him warm, and let him fast two or three hours; when you are to give him a mash of malt, let him eat a little hay, and then ride him softly for two or three hours.

After the balls, pour down a horn or two of warm beer, and if you find him purge too much, so that it takes his stomach quite away, give him two wild-briar balls, pounded to powder, in a quart of warm beer, and it will soon stop it; or if you have not the briar-balls, boil some cinnamon, pepper, nutmeg, ginger, and bay-berries in the beer.

But if the horse does not purge at all, ride him to some green corn that is not cut, or for want of that to some sour grass, and let him feed on it for about a quarter of an hour, then ride him gently home, set him up warm, and he will purge very kindly without danger.

SCULK, (with Hunters) a company, or a sculk of foxes.

SCUT; the tail of a hare or rabbit.

SEA DRAGON; a sort of fish that delights to swim in a strong stream, called also a quaviver.

SEAMS, } IN HORSES, are certain clifts in their
SEYMS, } quarters, caused by the dryness of the foot, or by being ridden upon hard ground; they are easily perceived by the horse's not setting his feet firm down in walking.

You may know them by looking upon the quarters of the hoofs on the inside, which will be cloven from the coronet to the very shoe, quite through the horn, and such quarters are commonly straightened.

Some of these clefts do not rise so high as the coronet, and therefore are the less dangerous; so that though they may be recovered, yet it is an imperfection in the feet, especially in fat ones, which have a thin horn, where such clefts frequently cause the scratch on the coronet.

Those horses that are troubled with seams, cannot work but on very soft ground, for upon stony hard pavements the blood will oftentimes issue out of the clefts.

For the cure of this malady, *see* FALSE QUARTER.

SEAN; a kind of long and large fishing-net.

SEAT; is the posture or situation of a horseman upon the saddle.

SEELING; a horse is said to seel, when upon his eye-brows there grows white hairs, mixed with those of his usual colour, about the breadth of a farthing, which is a sure mark of old age.

A horse never seels till he is fourteen years old, and always before he is fifteen, or sixteen at furthest; the light, sorrel, and black, seel sooner than others.

Horse-coursers usually pull out those white hairs with pincers, but if there be so many that it cannot be done, without making the horse looking bald and ugly, then they colour their eye-brows, that they may not appear old.

SELENDERS, are chaps or many sores in the bending of the horse's hough, as the mallenders are in the knees.

SEPARATERS. *See the* TEETH OF A HORSE.

SERCIL FEATHERS OF A HAWK; are the same that are called pinions in other fowls.

SERE; the yellow between the beak and the eyes of a hawk.

SERPEGER; the riding of a horse in the serpentine way, as in a thread with waved turnings, like the posture of a serpent's body.

[SERPENTINE: a serpentine tongue is a frisking tongue that is always in motion, and sometimes passes over the bitt, instead of keeping in the void space, called the liberty of the tongue.]

SET-FAST. *See* WARBLES.

SETONS, IN FARRIERY. The utility of these, in the opinion of Dr. DARWIN, is very great, from the consideration that they facilitate the discharge of matter from abscesses, without the necessity of admitting much air, the influence of which upon an ulcer, is the cause of hectic fever. In respect to setons for horses, we shall follow Mr. CLARKE, in preference to any other authority.

When tumours are taken in time, whether on the poll, withers, or back, and have not been previously bungled by common farriers, whose management in this case is often worse than the disease, they may be carried off, and brought to heal by the discharge from setons, without any of the usual butcherly and cauterizing work, or the least blemish or loss of substance.

Farriers are very apt to proceed with the knife, before the matter of the tumour is fully concocted, by which error they treble the difficulty, and period of the cure, and probably leave an indurated lump which is never effaced.

The seton-needle is a long, thin, sharp instrument, pointed like a dart, with which the practitioner ought to be furnished, of various sizes, from six to fifteen inches long, bended a little on the under side. The seton-cord, dipped in digestive ointment, being suited to the size of the tumour to be discussed, and the matter fluctuating from being ripe, the needle may be introduced at the upper end of the swelling, and the point conducted through the whole length, and brought out at the bottom, if necessary, and for the sake of procuring a depending orifice, the instrument may be forced through the sound muscular flesh. The seton being properly fixed, let it be tied together at both ends, or if the length will not admit of that, affix a button of wood at each end, by which it may be drawn upwards and downwards, as when tied, it may be turned in a circle. When there shall be no farther discharge, and the swelling shall have subsided, withdraw the seton, and heal the orifices with any spirituous application.

SETTER; a setting-dog to catch fowl with. *See* POINTER AND SETTING-DOG.

SETTING, (with Cock-fighters) is a term used after a cock has fought so long that he is not able to stand, or gives over fighting; then he is brought to the other cock, and set beak to beak, and if he does not strike, the battle is lost. *See* GAME-COCK.

SETTING-DOG; a dog trained up to the setting of partridges, *&c.* from a whelp, till he comes to perfection. You must pitch upon one that has a perfect and good scent, and is naturally addicted to the hunting of fowl, and this dog may be either a land-spaniel, water-spaniel, or a mongrel, between both, or indeed the shallow-flewed hound, tumbler, lurcher, or small bastard-mastiff, but none is better than the land-spaniel; he should be of a good nimble size, rather small than thick, and of a courageous mettle, which though not to be discerned, being very young, yet you may very well know it from a right breed, which have been known to be strong, lusty, and nimble rangers, of active feet, wanton tails, and busy nostrils.

Having made choice of a dog, begin to instruct him at four months old, or six at the farthest; and the first thing you should do, is to make him loving to, and familiar with you; the better to effect this, let him receive his food, as much as can be, from no other hand but your own, and correct him rather with words than blows. When he is so far trained that he will follow none but yourself, and can distinguish your frown from your smile, and smooth words from rough, teach him to couch and lie down close to the ground, first by laying him often on the ground, and crying lie close, and then rewarding or chastizing him, according as he deserves; in the next place, teach him to come creeping to you, and if he offer to raise his body or head, you must not only thrust the rising part down, but threaten him with an angry voice, which if he seems to slight, give him a small jerk or two with a whip-cord lash, and often renew his lessons, till he become very perfect in them.

Then teach him to lead in a string or line, and to follow you close at your heels, without trouble or straining his collar; after he has learned these things, take him into the field, and give him his liberty to range, but still in obedience to your command, and if he commits a fault, give him due correction.

As soon as you see him come upon the haunt of any partridge (which may be known by his greater eagerness in hunting, and also by a kind of whimpering and whining voice, being very desirous to open, but not daring) you ought then to speak to him, bidding him take heed, or the like; but yet if he either rush in, or spring the partridges, or open, and so the partridge escapes, then he ought to be severely corrected, and cast him off again, and let him hunt in some place where you know a covey lies, and see whether he has mended his fault; and if you catch any with your nets, give him the heads, necks, and pinions, for his encouragement. For more, *see* POINTER.

SEVIL OF THE BRANCHES OF A BRIDLE; is a nail turned round like a ring, with a large head made fast in the lower part of the branch, called *gargouille*. *See* BANQUET.

SEWEL, (with Hunters) that which is set or hanged up to keep a deer out of any place.

SHAMBRIER: is a long thong of leather, made fast to the end of a cane or stick, in order to animate a horse, and punish him if he refuses to obey the rider.

SHANK IN A HORSE, is that part of the fore-leg, which is between the knee and second joints, next to the foot, called a fetlock, or pastern-joint.

SHAW-FOWL; an artificial bird made on purpose for fowlers to shoot at.

SHEDDING OF THE HAIR. *See* CAST.

SHEDDING OF THE SEED, (in Horses) proceeds sometimes from the abundance and rankness of it, and also from strains, or being over-loaded, and sometimes from an infirmity in the stones and seed-vessels, not being able to retain the seed till it be digested and thickened.

When there is a discharge of seed dribbling frequently from the yard, plunge him every morning into cold water, and give him the following ball every night and morning:

Take *Venice* turpentine, one ounce; make it into a ball with a sufficient quantity of bole ammoniac.

If this suffice not, and ulcers in the urethra are suspected, inject a little of the following up into it two or three times a day:

Take balsam capivi, one ounce; dissolve it with the yolk of an egg, then gradually add to it a pint of lime-water.

Some colts get a habit of rubbing their yard against their belly, until they shed their seed; for this there is no cure but castrating.

Or take a pound of *Venice* or common turpentine, and the same quantity of bole ammoniac, finely powdered, and as much wheat flour as will suffice to make it up into a stiff paste; roll it about between your two hands, and break it off about the quantity of a small wash-

wash-ball, and give the horse three of them morning and evening, upon the end of a stick, or in a horn full of strong beer, till the flux of seed stop, which will be effected once in ten days, or at most in a fortnight; but before you give him the balls, it will be proper to purge his reins very well, for this will not hasten, but perfect the cure.

For the shedding of seed, or colt evil; mix *Venice* turpentine and sugar together, and give the horse every morning a ball, until the flux be stopped.

If you add a little of the inner bark of oak, or the powder of an acorn, they will be very good.

This distemper happens commonly in *August*, and in very hot weather in *May*.

For the colt evil take the powder of aniseeds, and leaves of betony in equal proportion, stamp them with white wine, till they come to be a very thick paste; anoint the sore with this, and it will cure that imperfection in the yard of the colt.

SHEEP. *See* MANAGEMENT.

SHELL-TOOTHED HORSE; is one that from four years, to old age, naturally, and without any artifice, bears a mark in all his fore-teeth, and there still keeps that hollow place with a black mark, which we call the eye of a bean, insomuch that at twelve or fifteen he appears with the mark of a horse that is not yet six.

For in the nippers of other horses, the hollow place is filled, and the mark disappears towards the sixth year, by reason of the wearing of the tooth.

About the same age, it is half worn out in the middling teeth, and towards the eighth year, it disappears in the corner teeth; but after a shell-tooth horse has marked, he marks still equally in the nippers, the middling, and the corner teeth; which proceeds from this, that having harder teeth than the other horses, his teeth do not wear, and so he does not lose the black spot.

Amongst the *Polish*, *Hungarian*, and *Croatian* horses, we find a great many hollow-toothed horses, and generally the mares are more apt to be such than the horses.

SHOEING OF HORSES. A work properly belonging to the smith; but as noblemen, gentlemen, and others, who are owners of horses, ought to be able to know and distinguish, at least in some degree, when it is well or ill done, it is judged necessary to be a little particular concerning it.

This art consists in paring of the hoofs well, in the shoe's being made of good stuff, in the well fashioning the web thereof, and well piercing the same, in fitting it to the horse's hoof, in making nails of good stuff, and well shaping them; and lastly, in the well driving and clinching of them.

But forasmuch as horses' hoofs are either perfect or imperfect, and these last also either rugged, long, crooked, or flat, and that the frushes may be broad, or the holes narrow, respect must be had unto them in this work.

First then for the paring of the perfect foot, and the fore feet: the seat of the shoe must be pared as even and plain as may be, that it may sit close and not bear more upon one place than another, and more must be taken off the toes than the heels, for the heels must be higher than the toes, because all the weight of a horse's forebody lies upon the quarters and them.

Next, the shoe must be made of *Spanish* iron, with a broad web, fitting it to the hoof; and let the spangles be thicker and more substantial than any other part of the shoe; and also something broad, so that the quarters on both sides may appear without the hoof, about a straw's breadth, to guard the coffin, which is the strength of the hoof; and in piercing, pierce it from the quarter to the hard toe, but not backwards towards the heel, that the holes may be wider on the outside than on the inside, and that the circle of the piercing may be more distant from the edge of the toe than from the edge of the quarter where it begins, because the hoof is thicker forwards than backwards, and therefore more hold to be taken; make the nails of the same stuff, with the heads square, and not quite so broad beneath as above, but answering to the piercing-holes, so as the heads of the nails may enter in and fill the same, appearing somewhat above the shoe, and then they will stand sure without shogging, and endure danger; and that which pierces them must be of the same size with the nails, that is, large above and small beneath, which is usually but little regarded by our smiths, who make the holes as wide on the inside as on the outside, and their nails of a great shouldering, by driving them over hard upon the nail-hole, that the heads, or rather necks of them cannot enter into the holes; whereas a good nail should have no shouldering at all, but be made with a plain square neck, so as it may justly fill the piercing holes of the shoe, for otherwise the head of the nail standing high, and the neck thereof being weak; it either breaks off, or else bends upon any light occasion, so as the shoe stands loose from the hoof, and is quickly lost.

Again, the shanks of the nail should be somewhat flat, and the points sharp, without hollowness or flaw, and stiffer towards the head above than beneath; and when you drive, drive at the first with soft strokes and a light hammer, till the nail is somewhat entered; and in shoeing fine and delicate horses, their points must be greased with soft grease, that they may the more easily enter, and the two talon-nails must be drove first; then see whether your shoe stands right or not, which may be seen by holding the frush; if it is not right, it must be set to rights, and so another nail driven in; when that is done, let the horse set down his foot again, and look round about it, to see whether it fits his foot in all places, and whether he treads just and even upon it, or otherwise; and if it appears that it does not furnish every part equally, but that it appears more on one side than another, lift up the horse's other foot, that so he may stand steadily on that foot, then strike him on the hoof with the hammer on the side the shoe is scanty, and that will make it come that way.

When the shoe stands straight and just, let all the rest of the nails be drove in, to the number of six or eight, three or four on each side, so that their points may seem to stand in the outside of the hoop, even and just

just one by another, as it were in a circular line, and not out of order like the teeth of a saw; then cut them off and clinch them, so as the clinches may be hidden in the hoof, which, by cutting the hoof with the point of a knife, a litle beneath the appearance of the nail, you may easily do. This done, pare off the hoof with a rape, so as the edge of the shoe may seem round about it.

Now for shoeing imperfect hoofs. 1. As to the broad one, in paring, as much must be taken off the toe with a buttteris as may be necessary, keeping it always under; but the heels and quarters must not be touched at all, unless it be to make the seat of the shoe plain, and that must be done as superficially as may be, whereby the hoofs will always remain strong: then make a good strong shoe, with a broad web and broad sponges, pierced as before, fitting to the pared hoof, and let it appear from the talon-nail towards the heel, a straw's breadth without the hoof; and let it be in such order, and with such nails as appertain to the perfect hoof, saving that five nails must be set on the outside of the hoof, and four on the inside, because he wears more without than within.

2. The rough and brittle hoof, which is generally weaker without than within, and for the most part better than the other hoofs; the heels may be more opened than the other, that so they may the more easily be stopped with cow-dung or other ointment, to keep them moist: the raggedness also on the outside of the coffin, should be filed away with a rape, and made smooth, and it must also be anointed oftener than other hoofs; but, as for the rest of the hoof, it must be pared as the perfect one, for which the shoe must be made neither too light, but so that it may bear the horse, nor yet too heavy, for then the hoof, being weak, will soon cast it; and this shoe must be pierced to be set on with nails, five without and four within.

3. The long hoof, reckoned imperfect, may be helped by cutting away the toe, for the shorter foot a weak and tender leg has, the better: and the rest of the hoof may be pared like the perfect one, for which hoof make as round a shoe as you can at the toe, that the breadth may take away the ill sight of the length; if the foot be very narrow, let the shoe disboard without the hoof, pierce the deeper, and set backward enough; because such kind of feet tread most on the heels, and let it be set on with eight nails like the perfect hoof.

4 The crooked hoof, to pare which, look on that side of the hoof which is highest and least worn, then pare all that away, and make it equal with the lower side which is most worn, without touching the worn side at all, unless it be to make the seat of the shoe plain, and for the rest, it must be pared like the perfect hoof; then, having an indifferent strong shoe, with a broad web ready, let it be fitted to the foot, and pare it not till you have laid the shoe to the foot, to the intent you may pare it to the horse's best advantage, which may be done if the scant side be pared; that is, mostly the inside, more towards the toe than the fuller and stronger side; and, where the hoof is weakest, there also the shoe must be strongest; and set this on with nine nails, viz. five on the strongest and four on the weakest side.

5. In that imperfect hoof, called the flat hoof, otherwise the promised hoof; make the seat of the shoe plain, and take somewhat off the toe, but the heel and ball of the toe must not be touched, but both of them left as strong as they can be: and the shoe must be made with a very strong web, for the more it covers the weak sole the better; letting the mid part of the web that covers the ball of the foot be much thicker than the outsides where the piercings are; also let it be so hollow as to touch no part of the ball of the foot, and large and long enough in all places, so that the horse may go at ease; and must be pierced round about the toe to favour the heels, and make ten holes for ten nails, *viz.* five on each side.

6. For the over-hollow hoof, and consequently in imperfect ones; pare it round about, especially the seat of the shoe, by the edges, that, in so doing, the hollowness thereof within may not be so deep, but shallower than it was before, and let it always be kept moist with stopping it, for fear of hoof-binding, observing as even a hand as may be in your paring, in all points like unto the perfect hoof; and in like manner make for it such a shoe in order and form, as was said before, to serve the perfect hoof.

7. As to broad frushes, which cause weak heels, there is little or no need of paring at all; wherefore the toe must only be pared, and also the seat of the shoe, as much as shall be judged necessary to the even standing of the shoe, leaving the heels as may be: but for this sort of hoof, the shoe must be stronger towards the heel than towards the toe: and also let the web be somewhat broad towards the heels, to save them from the ground; and it must be set on with nine nails, because it is most commonly a great foot; but, in all other respects, let it be made like the shoe for the perfect hoof.

8. The imperfect hoof, with narrow heels, must have the toe pared short, and the seat of the shoe must be made plain and fair, and open only so much that there may be some little space between the frush and the heel, for the less you take off the heel, the better: for this a light shoe must be made, with a broad web, and the sponges must be so broad as almost to meet together, to defend the heel from the ground, and pierce it all towards the toe, sparing the heel as much as may be: you must see that the shoe is long enough towards the holes; let it be put on with eight nails, like the shoe that fits the perfect hoof.

9. Now as to paring and shoeing of the hinder feet, which is quite contrary to the fore-feet, for the weakest part of the hinder feet is the toe, and therefore in paring them, you must always pare more than the heels; but in all other points observe the order of paring according to the perfections or imperfections of the hoofs, before observed.

Then in shoeing; it must be here stronger at the toe, and pierced nigher the heel than the toe, and the outside of the shoe should be made with a calkin, not over-

high,

high, but let the other ſponge be agreeable to the calkin, that is, as high in a manner as the calkin, which is to keep the horſe from ſliding; but then it muſt not be ſharp-pointed, but rather flat, and handſomely turned upwards, which is the beſt ſort of calkin.

But in caſe of a falſe quarter, if the horſe halts, then make him a ſhoe fitting to his foot, tacking it on the quarter on that ſide the falſe quarter is; but, if he does not halt, then make it with a button or ſhouldering, on the inſide of the ſhoe, and next to the ſole of the foot, ſomewhat diſtant from the falſe quarter, towards the toe, which will defend the ſore place, that the ſhoe touch it not; and you may travel your horſe where you pleaſe with this ſort of ſhoe.

10. For the hoofs that interfere; as they are moſt commonly higher on the outſide than on the inſide, you ſhould therefore take off the outſide with a butteris, to the intent that the inſide may be ſomewhat higher, if it will be, than the outſide; and then making a ſhoe for his foot, which ſhould be thicker on the inſide than on the outſide, it muſt never have any calkin, for that will make the horſe tread awry, and the ſooner to interfere.

Laſtly, For paring and ſhoeing the foot that is hoof-bound; firſt pare the toe as ſhort as may be, and the ſole ſomewhat thin; then open the heels well, and make him a half-ſhoe, like a half-moon.

Every day's experience ſhews the great increaſe of lame horſes in this kingdom, which is remarked by foreigners as a diſgrace peculiar to this country.

From the remarks which the author has had occaſion to make, for upwards of twenty-four years paſt, not one horſe in an hundred is liable to be lame above the knee: fifteen out of twenty are abſolutely lame in the feet, and that from various cauſes; ſuch as corns, thruſhes, ſand-cracks, relaxations, contractions, or by being pricked or bound by nail, wounded by channel-nail, bruiſed by ſhoe or ſtone; or ſurbated by hard riding; or by ſluicing horſes, when heated, into a pond of cold water, thus chilling the blood, and cauſing a ſtagnation of it at the extremities, the feet, thereby preventing the blood from performing its due return by circulation; as alſo by means of the faulty and ill-ſhaped convexity of the ſhoes, eſpecially upon the declivites of the ſtreets, and when the roads are hard; together with the great increaſe of motion, ariſing between two ſuch hard bodies as the ſhoe and the ground, not unlike ſtriking the flint againſt the ſteel; ſtrokes which produce actual fire. When therefore a horſe goes at the rate of twelve miles an hour, the ſhoe from the friction againſt the ground, muſt acquire a very great degree of heat, which cannot fail to be communicated to the internal parts of the foot.

Moſt of the above complaints affect the fore-feet, the real cauſes of which I ſhall endeavour to explain; and ſhall lay down ſome cautions and obſervations, in what manner to guard againſt thoſe cauſes, and thus prevent their effects and conſequences.

The firſt ſtep we take to deſtroy the happineſs of this noble animal, is to confine him to a hot element, the drought of the ſtable, inſtead of a cold and moiſt one, the earth; in diametrical oppoſition to the dictates of nature. By which means the blood is kept up to a degree of immoderate heat, that dries up all the nouriſhment which the nervous parts of the foot require.

The ſtall, in which the horſe is to ſtand, ſhould be on a level, rather gradually deſcending in the middle, ſo that the damp and ſalts of his urine may riſe to his fore-feet; in which caſe he would reap that benefit, both ſtanding and lying, which nature actually requires, and ſtopping and greaſing would of courſe be ſuperſeded. The method laid down being the moſt natural, the fore-feet would benefit in the ſame manner that the hinder-feet do, and grow as faſt. The farriers would have no occaſion to add fire, or to uſe any injudicious means, to ſoften the fore-feet, for the greater eaſe in paring. The fore-feet would recover their elaſticity, and dilate themſelves in the ſame manner as the hinder-feet do. For want of which a contraction of the foot is brought on, vulgarly called a dry-founder, which can be compared to nothing more juſtly than the gout in human beings; a diſeaſe deemed incurable. The dealers term it ſoreneſs or groggineſs.

In all ſuch caſes, the foot muſt be kept as cool as poſſible, and the toe kept very ſhort; and if ſtrong on the front, as all generally are, it muſt be weakened with the raſp; and the ſhoe is to be concave, ſhort, and circular, that the horſe may tread on the ſpongy part of the foot, which nature allotted him to tread upon, called the frog, on which the tendons reſt, and which itſelf ſhould reſt on the ground. I mean he ſhould tread in the ſhoe, juſt as he would tread on the extreme horny part of the foot and frog, without the ſhoe. This will afford the requiſite aſſiſtance to carry on the free circulation of the blood in the contracted parts of the foot, which was before impeded.

This concave ſhoe will prevent the horſe from ſliding or falling, on the convexity or declivity of the ſtreets, or even on the ſmootheſt ſurface; the frog being unguarded and expoſed ſerves for a ketch or ſtop.

Our anceſtors uſed to guard the weakeſt part of the foot by covering the toe; and then the horſes were all in a ſtate of ſoundneſs. How we came to be ſo much in the wrong, ſeems altogether unaccountable. We have taken it into our heads to guard the heels and frog, by which means we have crippled our beſt horſes. The heels, frog, and bars, of the foot, are naturally ſufficiently guarded; and our method is a ſure one to deſtroy them, by unreaſonably deviating from that uſed by our anceſtors.

When a foot becomes too much relaxed, too weak, and too much dilated, called a wet-founder, a fleſhy ſole, and termed by the faculty a pumice-foot; in that caſe, the convex ſhoe is requiſite. The horſe ſhould ſtand in a dry ſtall; and, by the principle on which this ſhoe is formed, the foot will be contracted; by which means it will grow ſtrong, the membranous ſubſtance will fall or ſubſide, and the foot recover in ſtrength, and keep in a ſtate of perfection.

It is ever to be obſerved as a certain rule, that when a horſe's

a horse's foot inclines to grow strong it grows small: on the contrary, when inclining to grow large, it grows weak. All which is owing to too much or too little flexibility in the different feet; therefore opposite shoes are, in those cases, to be opposed to such opposite disorders.

In the case of other feet which, by nature, are neither concave nor convex, and which I call neither too strong nor too weak, I recommend a flat shoe, of such a construction as not to admit of contraction or dilatation. This I call a preventive shoe.—Was such a shoe to be used at three or four years old, it would prevent any variation in the foot of a horse during life, unless it happened from some unforeseen accident.

The great nicety required in shoeing horses, at this day, calls for much greater mechanical heads than those usually employed: besides more time to do the business in. And though the advance in shoeing, within these twenty years past, is far from being adequate to the labour, yet if the journeyman was not compelled to work so hard, he would require a less quantity of strong liquors to enable him to support the fatigue, and would be less subject to be intoxicated, to the loss of his reason and judgment; in which state it is impossible he should be capable to judge for a dumb animal.

If the labourer was better paid, a different set of people from that low ignorant class, now generally employed, would be encouraged to become good artists, and to excel in the mechanical branch; to take greater pains, and not hurry over their business in the manner generally practised; from which horses may justly date all their sufferings, and, if capable of utterance, could point them out far better than the generality of those who now judge for them.

Suppose a horse, by moderate labour, wears a set of shoes every month, and the employer was to pay six pence extraordinary for the greater time requisite in shoeing; I am fully persuaded it would answer every purpose the owner of the beast could wish for.

The deviation from justness, and the unevenness of that side of the shoe which goes next the foot, with its unequal bearing, are the causes which destroy all the flat-footed or oyster-footed horses, as I call them, faster than they can possibly grow, it being out of the power of any number of nails to keep the shoe and foot together, so as not to admit of any action between them; the water and gravel coming between the foot and shoe also grind the foot away, where the friction is greatest, as if held against the face of a grinding-stone. And then the owner condemns the farrier for paring away the horse's heels; who would be glad to add more foot, where it was wanting, if his skill could reach so far, and thus save himself much trouble in convexing, vulgarly called boxing or hollowing, the shoe, and that to a very great degree of untruth. When once the foot gets below its surface, it very rarely if ever recovers itself whilst at labour; the shoes, in that case, are to be taken off, and the horse is to be turned out into his natural element for a proper time, that he may recover his feet; or some dexterous artist must be employed to display his judgment and skill upon him.

The great multiplicity of nails generally used, making so many holes in the hoof, in a great measure contributes to destroy it faster than it can possibly grow. It is out of the power of any number of nails to resist the greater pressure of a horse, and of the burthen he carries, unless the shoe be made and fitted to a principle of truth. For such shoes I recommend six nails only, in the case of slight saddle-horses; eight for a chaise-horse; and ten for a coach or cart horse.

These nails are of a different construction from the nails commonly used, as one of them will hold better than two of the common sort. I call them concave nails, made without any shoulder: they drive down in the hole like a wedge, and are extremely well adapted to shoes made thick on the outside edge, with a counter-sunk-hole. And the horse at the same time, instead of treading on the convexity or inward edge of the shoe, by which means he is apt to strain the nails, will be obliged to tread on the top of the head of the nail, so that there will be no stress on the clinch of the nail. This will be a means of preserving the hoof, the support of the fabric, as the foundation is of a house; which, if not kept up, the fabric must totter and fall. The foot is preserved by encouraging its growth, as has been already hinted; that is, if made to stand cold and moist, instead of hot and dry.

Thus we have considered the disorders incident to the foot of a horse, their causes, their symptoms, and the seat in which they are lodged, with the effects they produce.

Let us to this subjoin, as highly necessary, an enumeration of the parts of the foot.

A horse's feet are the extremities of his body, subservient to its support and motion; a receptacle of muscular insertions, of blood-vessels, and nerves, which terminate there.

The principal parts of the foot which claim our attention, and about which the most considerable branch of the art of farriery is employed, are the following: the hoof, the sole, the frog, the heels, the coronet, the coffin-bone, the periosteum, the superior cartilages, the cartilage of the coffin-bone, the cartilage of the head of the little pastern-bone, the two cartilages of the heel-bone, the annular ligament, the ligaments of the little pastern, the transverse ligaments, the upper and lower muscles of the coffin-bone, the tendon of the great extender, the fat and mucilaginous glands, the arteries, the veins, and the nerves.

Learned men differ in opinion with respect to the matter of which the horse's hoof is formed, which answers to the nails of a man's fingers, or toes of the feet, designed by nature as a proper defence for the extremities. HIPPOCRATES supposed the hoof to be formed from a glutinous matter, parched and dried by heat, after being driven to the extreme parts. EMPEDOCLES thought that the hoof is made of the extremities of the nerves, and that therefore when these drop off, it is a sign of great weakness. ARISTOTLE is of opinion, that the hoofs are produced from adventitious aliment. And to conclude, the anatomist COLUMBUS thinks, that the parts

parts just mentioned take their origin, partly from the skin, and partly from the tendons of the muscles, which move the fingers and toes, and that they are increased in the same manner as the teeth: namely, by opposition of parts to the roots.

With respect to the hoofs of horses, whatever be the original matter out of which they are formed, their growth seems to be carried on by a continual opposition of parts to their roots, successively driving before them the particles that preceded. They are of an intermediate substance between bone and gristle: not so hard as bone, for then they would be apt to snap and break; nor yet so soft as gristle, as in that case they could not support the weight of the body of a horse; much less bear the fatigue of travelling amidst stones, &c. They are therefore of a horny substance, devoid of any feeling, growing pretty firmly to the part included by them, and fastened to the coffin-bone by a ligament that proceeds from their top or root, which root the skin also encompasses in some measure; underneath them lie many twigs of nerves, and tendons of muscles, which run even to the very bottom of the hoof, or sole of the foot; on pricking or wounding which with a nail, or the like, or even when but bruised by riding on hard roads, the horse immediately discovers his being hurt; a circumstance which should induce the master of every horse to avoid as much as possible hard and stony roads, and to keep his feet cool, moist, and well shod.

Lord Pembroke observes, "the only system of farriers is to shoe in general with excessive heavy and clumsy ill-shaped shoes, and very many nails, to the total destruction of the foot. The cramps they annex tend to destroy the bullet, and the shoes made in the shape of a walnut-shell, prevent the horse's walking upon the firm basis which God has given him for that end, and thereby oblige him to stumble and fall. They totally pare away also and lay bare the inside of the animal's foot with their detestable butterices, and afterwards put on very long shoes, whereby the foot is hindered from having any pressure at all upon the heels, which pressure otherwise might still perchance, notwithstanding their dreadful cutting, keep the heels properly open, and the food in good order. The frog should never be cut out; but, as it will sometimes become ragged, it must be cleaned every now and then, and the ragged pieces pared off with a knife. In one kind of foot, indeed, a considerable cutting away must be allowed of, but not of the frog; we mean that very high feet must be cut down to a proper height; because, if they were not, the frog, though not cut, would still be so far above the ground as not to have any bearing upon it, whereby the great tendon must inevitably be damaged, and consequently the horse would go lame.

"The weight of shoes must greatly depend on the quality and hardness of the iron. If the iron be very good, it will not bend; and, in this case, the shoes cannot possibly be made too light: care, however, must be taken that they be of a thickness so as not to bend, for bending would force out the nails, and ruin the hoof. That part of the shoe which is next the horse's heel, must be narrower than any other (as is seen in the copper-plate for this article) that stones may be thereby prevented from getting under it, and sticking there; which otherwise would be the case, because the iron, when it advances inwardly beyond the bearing of the foot, forms a cavity, wherein stones being lodged would remain, and, by pressing against the foot, lame the horse. The part of the shoe which the horse walks upon should be quite flat, and the inside of it likewise; only just space enough being left next the foot to put in a picker (which ought to be used every time the horse comes into the stable) and also to prevent the shoe's pressing upon the sole. Four nails on each side hold better than a greater number, and keep the hoof in a far better state. The toe of the horse must be cut short, and nearly square (the angles only just rounded off) nor must any nails be driven there; this method prevents much stumbling, especially in descents, and serves, by throwing nourishment to the heels, to strengthen them: on them the horse should in some measure walk, and the shoe be made of a proper length accordingly; by this means narrow heels are prevented, and many other good effects produced. Many people drive a nail at the toe, but it is an absurd practice. Leaving room to drive one there, causes the foot to be of an improper length, and moreover, that part of the hoof is naturally so brittle, that, even when it is kept well greased, the nail there seldom stays in, but tears out and damages the hoof. That the directions for shoeing a proper length may be more clear and intelligible, we have annexed a draught of a foot shod a proper length standing on a plain surface, and with it a draught of the right kind of shoe.

"In wet, spongy, and soft, ground, where the foot sinks in, the pressure upon the heels is of course greater than on hard ground; and so indeed it should be upon all accounts. The hinder feet must be treated in the same manner as the fore ones, and the shoes the same; except in hilly and slippery countries, they may not improperly be turned up; the fore-shoes are of no service, and are certain ruin to the fore legs, especially to the bullets. In descending hills, cramps are apt to throw horses down, by stopping the fore-legs out of their proper basis and natural bearing, when the hinder ones are rapidly pressed: which unavoidably must be the case, and consequently cannot but push the horse upon his nose. With them on a plain surface a horse's foot is thrown forwards on the toe, out of its proper bearing, which is very liable to make the horse stumble. The notion of their utility in going up hills is a false one. In ascending, the toe is the first part of the foot which bears on or takes hold of the ground, and whether the horse draws or carries, consequently the business is done before the part where the cramps are comes to the ground. Ice-nails are preferable to any thing to prevent slipping, as also to help horses up hill, the most forward ones taking hold of the ground early, considerably before the heels touch the ground: they must be so made as to be, when driven in, scarcely half an inch above the shoe, and also have four sides ending at the top in a point. They are of great service to prevent slipping on all kinds of places, and by means of them a horse is not

 thrown

thrown out of his proper basis. They must be made of very good iron; if they are not, the heels of them will be perpetually breaking off. From the race horse to the cart-horse the same system of shoeing should be observed; the size, thickness, and weight, of them only should differ. The shoe of a race-horse must of course be lighter than that of a saddle horse; that of a saddle-horse lighter than that of a coach or bat-horse; and these last more so than a cart, waggon, or artillery, horse. At present all shoes in general are too heavy; if the iron is good, shoes need not be so thick as they are now generally made. The utmost severity ought to be inflicted on all those who clap shoes on hot, as this unpardonable lazinesS in farriers in making feet thus fit shoes, instead of shoes fitting feet, dries up the hoof, and utterly destroys them. Frequent removals of shoes are detrimental and tear the foot, though sometimes they are very necessary; this is an inconvenience which half shoes are liable to, for the end of the shoe, being very short, is apt to work soon into the foot, and consequently must then be moved."

In a late treatise on this subject by Mr. CLARK of *Edinburgh*, the common form of shoes and method of shoeing are, with great appearance of reason, totally condemned, and a new form and method recommended, which seem founded on rational principles, and to have been confirmed by experience.

Common method. "In preparing the foot for the shoe (our author observes) the frog, the sole, and the bars or binders, are pared so much that the blood frequently appears. The shoe by its form (being thick on the inside of the rim, and thin upon the outside) must of consequence be made concave or hollow on that side which is placed immediately next the foot, in order to prevent its resting upon the sole. The shoes are generally of an immoderate weight and length, and every means is used to prevent the frog from resting upon the ground, by making the shoe heels thick, broad, and strong, or rising cramps or caukers on them.

"From this form of the shoe, and from this method of treating the hoof, the frog is raised to a considerable height above the ground, the heels are deprived of that substance which was provided by nature to keep the crust extended at a proper widenesS, and the foot is fixed as it were in a mould.

"By pressure from the weight of the body, and resistance from the outer edges of the shoe, the heels are forced together, and retain that shape impressed upon them, which it is impossible ever after to remove: hence a contraction of the heels, and of course lamenesS. But farther,

"The heels, as has been observed, being forced together, the crust pressed upon the processes of the coffin and extremities of the nut bone; the frog being then confined, and raised so far from the ground that it cannot have that support upon it which it ought to have, the circulation of the blood is impeded, and a wasting of the frog, with frequently that of the whole foot, ensues. Hence proceed all those diseases of the feet known by the names of foundered, hoof-bound, narrow-heels, running-thrushes, corns, high soles, &c.

"I have likewise frequently observed, from this compression of the internal parts of the foot, a swelling of the legs immediately above the hoof, attended with great pain and inflammation, with a discharge of thin, ichorous, fetid, matter; from which symptoms it is often concluded, that the horse is in a bad habit of body (or what is termed a grease falling down) and must therefore undergo a course of medicine, &c.

"The bad effects of this practice are still more obvious upon the external parts of the hoof. The crust towards the toe, being the only part of the hoof free from compression, enjoys a free circulation of that fluid necessary for its nourishment, and grows broader and longer; from this extraordinary length of the toe, the horse stumbles in his going, and cuts his legs. The smaller particles of sand insinuate themselves between the shoe and the heels, which grind them away, and thereby produce lamenesS. All this is entirely owing to the great spring the heels of the horse must unavoidably have upon the heels of a shoe made in this form.

"This concave shoe in time wears thin at the toe, and, yielding to the pressure made upon it, is forced wider, and of course breaks off all that part of the crust on the outside of the nails.

"Instances of this kind daily occur, insomuch that there hardly remains crust sufficient to fix a shoe upon.

"It is generally thought that the broader a shoe is, and the more it covers the sole and frog, a horse will travel the better. But, as has been formerly remarked, the broader a shoe is of this form, it must be made the more concave, and, in consequence, the contracting power upon the heels must be the greater. It is likewise to be observed that, by using the strong broad-rimmed concave shoes in the summer-season, when the weather is hot and the roads very dry and hard, if a horse is obliged to go fast, the shoes, by repeated strokes (or frictions) against the ground, acquire a great degree of heat, which is communicated to the internal parts of the feet; and, together with the contraction upon the heels occasioned by the form of the shoe, must certainly cause exquisite pain. This is frequently succeeded by a violent inflammation in the internal parts of the hoof, and is the cause of that disease in the feet so fatal to the very best of our horses, commonly termed a founder. This is also the reason why horses, after a journey or hard ride, are observed to shift their feet so frequently, and to lie down much.

"If we attend further to the convex surface of this shoe, and the convexity of the pavement upon which horses walk, it will then be evident that it is impossible for them to keep their feet from slipping in this form of shoe, especially upon declivities of streets.

"It is also a common practice to turn up the heels of the shoes into what is called cramps or caukers, by which means the weight of a horse is confined to a very narrow surface, viz. the inner round edge of the shoe-rim and the points or caukers of each heel, which soon wear round and blunt; besides they, for the most part, are made by far too thick and long. To this cause we must likewise ascribe the frequent and sudden lamenes

nefs horfes are fubject to in the legs, by twifting the ligaments of the joints, tendons, *&c.*

"I do not affirm that caukers are always hurtful, and ought to be laid afide: on the contrary, I grant that they, or fome fuch-like contrivance, are extremely neceffary, and may be ufed with advantage upon flat fhoes where the ground is flippery, but they fhould be made thinner and fharper than thofe commonly ufed, fo as to fink into the ground, otherwife they will rather be hurtful than of any advantage.

"The *Chinefe* are faid to account a fmall foot an ornament to their women, and, for that purpofe, when young, their feet are confined in fmall fhoes. This no doubt produces the defired effect, but muft neceffarily be very prejudicial to them in walking, and apt to render them entirely lame.

"This practice, however, very much refembles our manner of fhoeing horfes; for, if we looked upon it as an advantage to them to have long feet, with narrow heels, and fuppofing we obferved no inconvenience to attend it, we could not poffibly ufe more effectual means to bring it about, than by following the method already defcribed.

"In fhoeing a horfe, therefore, we fhould in this, as in every other cafe, ftudy to follow nature; and certainly that fhoe which is made of fuch a form as to refemble as near as poffible the natural tread and fhape of the foot, muft be preferable to any other.

"But it is extremely difficult to lay down fixed rules with refpect to the proper method to be obferved in treating the hoofs of different horfes: it is equally difficult to lay down any certain rule for determining the precife form to be given to their fhoes. This will be obvious to every judicious practitioner, from the various conftructions of their feet, from difeafe, and from other caufes that may occur; fo that a great deal muft depend upon the difcretion and judgment of the operator, in proportioning the fhoe to the foot, by imitating the natural tread, to prevent the hoof from contracting a bad fhape.

"In order, therefore, to give fome general idea of what may be thought moft neceffary in this matter, I fhall endeavour to defcribe that form of fhoe, and method of treating the hoofs of horfes, which from experience I have found moft beneficial.

"Proper method. It is to be remembered, that a horfe's fhoe ought by no means to reft upon the fole, otherwife it would occafion lamenefs; therefore it muft reft entirely upon the cruft, and, in order that we may imitate the natural tread of the foot, the fhoe muft be made flat, if the height of the fole does not forbid it; it muft be of an equal thicknefs all around the outfide of the rim, and, on the part of it which is to be placed immediately next the foot, a narrow rim or margin is to be formed, not exceeding the breadth of the cruft upon which it is to reft, with the nail-holes placed exactly in the middle; and, from this narrow rim, the fhoe is to be made gradually thinner towards its inner edge.

"The breadth of the fhoe is to be regulated by the fize of the foot, and the work to which the horfe is accuftomed; but, in general, it fhould be made rather broad at the toe, and narrow towards the extremity of each heel, in order to let the frog reft with freedom upon the ground. The neceffity of this has been already fhewn.

"The fhoe being thus formed and fhaped like the foot, the furface of the cruft is to be made fmooth, and the fhoe fixed on with eight, or at moft ten nails, the heads of which fhould be funk into the holes, fo as to be even with the furface of the fhoe. The fole, frog, and bars, as I have already obferved, fhould never be pared, farther than taking off what is ragged from the frog, and any excrefcences or inequalities from the fole. And it is very properly remarked by Mr. Osmer, 'That the fhoe fhould be made fo as to ftand a little wider at the extremity of each heel than the foot itfelf; otherwife, as the foot grows in length, the heel of the fhoe in a fhort time gets within the heel of the horfe; which preffure often breaks the cruft, and produces a temporary lamenefs, perhaps a corn.'

"This method of fhoeing-horfes I have followed long before Mr. Osmer's treatife on that fubject was publifhed; and for thefe feveral years paft I have endeavoured to introduce it into practice.

"But fo much are farriers, grooms, *&c.* prejudiced in favour of the common method of fhoeing and paring out the feet, that it is with difficulty they can even be prevailed upon to make a proper trial of it.

"They cannot be fatisfied unlefs the frog be finely fhaped, the fole pared, and the bars cut out, in order to make the heels appear wide. This practice gives them a fhow of widenefs for the time; yet that, together with the concave form of the fhoe, forwards the contraction of the heel, which, when confirmed, renders the animal lame for life.

"In this flat form of fhoe, its thickeft part is upon the outfide of the rim, where it is moft expofed to be worn; and, being made gradually thinner towards its inner edge, it is therefore much lighter than the common concave fhoe: yet it will laft equally as long, and with more advantage to the hoof; and, as the frog or heel is allowed to reft upon the ground, the foot enjoys the fame points of fupport as in its natural ftate. It muft therefore be much eafier for the horfe in his way of going, and be a means of making him furer-footed. It is likewife evident, that, from this fhoe, the hoof cannot acquire any bad form; when, at the fame time, it receives every advantage that poffibly could be expected from fhoeing. In this refpect it may very properly be faid, that we make the fhoe to the foot, and not the foot to the fhoe, as is but too much the cafe in the concave fhoes, where the foot very much refembles that of a cat's fixed in a walnut-fhell.

"It is to be obferved, that the hoofs of young horfes, before they are fhod, for the moft part are wide and open at the heels, and that the cruft is fufficiently thick and ftrong to admit of the nails being fixed very near the extremities of each. But, as I have formerly remarked, from the conftant ufe of concave fhoes, the cruft of this part of the foot grows thinner and weaker, and, when the nails are fixed too far back, efpecially upon the infide, the horfe becomes lame; to avoid this,

they are placed more towards the fore-part of the hoof, which causes the heels of the horse to have the greater spring upon the heels of the shoe, which is so detrimental as to occasion lameness; whereas, by using this flat form of shoe, all these inconveniences are avoided, and, if the hoofs of young horses, from the first time that they were shod, were continued to be treated according to the method here recommended, the heels would always retain their natural strength and shape.

"By following this flat method of shoeing, and manner of treating the hoofs, several horses now under my care, that were formerly tender-footed and frequently lame while shod with broad concave shoes, are now quite sound, and their hoofs in as good condition as when the first shoes were put upon them; in particular, the horse that wore the broad concave shoes now goes perfectly sound in the open narrow kind of shoes.

"If farriers considered attentively the design of shoeing horses, and would take pains to make themselves acquainted with the anatomical structure of the foot, they would be then convinced that this method of treating the hoofs, and this form of shoe, is preferable to that which is so generally practised.

"It has been alledged, that in this form of shoe horses do not go so well as in that commonly used. This objection will easily be laid aside, by attending to the following particulars. There are but few practitioners that can or will endeavour to make this sort of shoe as it ought to be. The iron, in forming it, does not so easily turn into the circular shape necessary, as in the common shoe; and perhaps this is the principal reason why farriers object to it, especially where they work by the piece. And, as many horses that are commonly shoed with concave shoes have their soles considerably higher than the crust, if the shoe is not formed, or if it is made too flat, it must unavoidably rest upon the sole, and occasion lameness.

"The practice of paring the sole and frog is also so prevalent, and thought so absolutely necessary, that it is indiscriminately practised, even to excess, on all kinds of feet: and while this method continues to be followed, it cannot be expected that horses can go upon hard ground (on this open shoe) with that freedom they would do if their soles and frogs were allowed to remain in their full natural strength.

"Experience teaches us, that, in very thin soled shoes, we feel an acute pain from every sharp-pointed stone we happen to tread upon. Horses are sensible of the same thing in their feet, when their soles, &c. are pared too thin; hence they who are prejudiced against this method, without ever reflecting upon the thin state of the sole, &c. are apt to condemn it, and draw their conclusions more from outward appearances than from any reasoning or knowledge of the structure of the parts. From a due attention likewise to the structure of a horse's foot in a natural state, it will be obvious, that paring away the sole, frog, &c. must be hurtful, and in reality is destroying that substance provided by nature for the defence of the internal parts of the foot, so that it must be more liable to accidents from hard bodies, such as sharp stones, nails, glass, &c. From this consideration we shall likewise find, that a narrow piece of iron adapted to the shape and size of the foot is the only thing necessary to protect the crust from breaking or wearing away; the sole, &c. requiring no defence if never pared.

"There is one observation I would farther make, which is, that the shoe should be made of good iron, well worked, or what smiths call hammer-hardened; that is, beat all over lightly with a hammer, when almost cold. The *Spanish* and *Portuguese* farriers use this practice greatly, insomuch that people, who have seen them at work, have reported that they form their horses shoes without heating them in the fire as we do. It is well known, that heating of iron till it is red softens it greatly; and when shoes thus softened are put upon horses feet, they wear away like lead. But, when the shoes are well hammered, the iron becomes more compact, firm, and hard, so that a well-hammered shoe, though made considerably lighter, yet will last as long as one that is made heavier; the advantage of which is obvious, as the horse will move his feet with more activity, and be in less danger of cutting his legs.

"The common concave shoes are very faulty in this respect; for, in fitting or shaping them to the foot, they require to be frequently heated, in order to make them bend to the unequal surface which the hoof acquires from the constant use of these shoes: they thereby become soft, and to attempt to harden them by beating or hammering when they are shaped to the foot would undo the whole. But flat shoes, by making them, when heated, a little narrower than the foot, will, by means of hammering, become wider, and acquire a degree of elasticity and firmness, which it is necessary they should have, but impossible to be given them by any other means whatever; so that any farrier from practice will soon be able to judge, from the quality of the iron, how much a shoe, in fitting it to the circumference of the hoof, will stretch by hammering when it is almost cold: this operation, in fitting flat shoes, will be less difficult, especially when it is considered, that as there are no inequalities on the surface of the hoof (or at least ought not to be) which require to be bended thereto, shoes of this kind only require to be made smooth and flat; hence they will press equally upon the circumference or crust of the hoof, which is the natural tread of a horse."

When the roads, &c. are covered with ice, it becomes necessary to have the heels of the shoes turned up, and frequently sharpened, in order to prevent horses from slipping and falling. As this cannot be done without the frequent moving of the shoes, which breaks and destroys the crust of the hoofs where the nails are drove, to prevent this, it is recommended to those who are willing to be at the expence, to have steel points screwed into the heels or quarters of each shoe, which might be taken out and put in occasionally.

The method of doing this properly, as directed by M. Clerk, is first to have the shoes fitted to the shape of the hoof, then to make a small round hole in the extremity of each heel, or in the quarters, about three-eighths of an inch in diameter, or more, in proportion to

to the breadth and size of the shoe; in each of these holes a screw is to be made; the steel points are likewise to have a screw on them, exactly fitted to that in the shoes. Care must be taken that the screw on the points is no longer, when they are screwed into the shoe, than the thickness of the latter. The steel points are to be made sharp; they may be either made square, triangular, or chissel-pointed, as may be most agreeable; the height of the point above the shoe should not exceed half an inch for a saddle horse, they may be made higher for a draft horse. The key or handle that is necessary to screw them in and out occasionally, is made in the shape of the capital letter T, and of a sufficient size and strength; at the bottom of the handle, a socket or cavity must be made, properly adapted to the shape of the steel point, and so deep as to receive the whole head of the point that is above the shoe. In order to prevent the screw from breaking at the neck, it will be necessary to make a gradual taper; the same is likewise to be observed of the female screw that receives it, that is, the hole must be wider on the upper part of the shoe than the under part; the sharp points may be tempered or hardened, in order to prevent them from growing too soon blunt: but, when they become blunt, they may be sharpened as at first. These points should be unscrewed when the horse is put into the stable, as the stones will do them more injury in a few minutes than a day's riding on ice. A draft horse should have one point on each shoe, as that gives them firmer footing in drawing on ice; but for a saddle horse, when they are put there, they are apt to make him trip and stumble.

When the shoes are provided with these points, a horse will travel on ice with the greatest security and steadiness, much more so than on causeway or turnpike roads, as the weight of the horse presses them down in the ice at every step he makes.

On this subject, Mr. EDWARD COLEMAN, of the Veterinary College, *London*, has published ingenious and learned observations, in which he proves the impropriety of the methods formerly used, and points out the proper treatment necessary to assist the farrier in shoeing horses. Indeed he says the practice of shoeing horses does not appear to have undergone any material alteration for centuries, although this art is susceptible of great improvement, as those who have been employed to shoe horses, and attend to their diseases, have never acted upon principles of any sort, and being ignorant of the structure, and totally destitute of all knowledge of the uses of the different parts, how should they be able to cut the hoof and apply a shoe without destroying, or in some degree pervert the intentions of nature. All this Mr. COLEMAN demonstrates, and proves that by the liberal assistance of many of our most eminent men of physical and anatomical knowledge, he has been enabled to give such useful instructions in the art of shoeing horses, as not only assists that animal, but prevents many of those diseases which have too frequently rendered them useless. To elucidate this he has given several plates, with references to every part of the foot and shoe, in order to enable any person to form a proper idea of the right shape and use of both, and thereby prevent the mischief too frequently occasioned by ignorance. Upon the whole he shews the utility and benefit to the community by the Veterinary College, whose institution has met with such universal approbation, both from the gentleman and farrier, as well as the board of ordnance, *&c. &c.* and the ingenious and instructive manner in which he has treated the subject, shew what attention he has paid to it, and for which he merits the public thanks. The obstinacy and ignorance of blacksmiths, induced him to recommend a change in their old erroneous method, and advises all those who wish to adopt the improved method, to send with their horses, when they are convey ed to the blacksmith, the following directions, in writing:

"Mr. *A. B.* desires his horses may be always shod, and their feet treated as follows: Nothing to be cut from the sole, binders, or frog, but loose rotten scales. No shoes to be fitted on red-hot. Shoes to be made of good iron, with a flat surface for the horse to stand on, web not so wide as formerly, and weakest at heel, that the frog may rest on the ground. No more opening of heels on any pretence."

Rather than lose a good customer, this has always been complied with, and the happy consequence has been, that many horses which before had never a heel to stand upon, with scarce a sound place in the crust in which to drive a nail, have now the enjoyment of their feet, in a full, strong, sound, natural state; and my friends, who were at first staggered by the prejudice and pertinacious impudence of the stable gentry, have at length learned to despise it as it merits, and to judge for themselves.

It having been objected, that to weaken or lower the shoe heels too much, previous to a sufficient growth of the frog, might expose the flexor muscle to an improper extension, a medium may be observed, until the frog shall have grown so as to rest upon the ground, after which there can be no room for farther solicitude.

SHOLE, a company of fish.

SHOOT, (with Hunters) a young deer.

SHOOTING OF FOWL; whether the game be flying, or on a hedge or tree, always endeavour to shoot as near as you possibly can, with the wind, and rather sideways, or behind the fowl, than in their face; nor shoot at a single bird, if you can compass more within your level.

If they be on a tree, hedge, or the ground, seek out for the most convenient shelter you can of a hedge, bank, tree, *&c.* that you may be concealed from the sight of the fowl, and being within shot, and having a fair mark, lose no time, but let fly.

SHOOTING FLYING, is by experience found to be the best and most diverting way of shooting: it is necessary for any gentleman who sports much, to have two guns; the barrel of one about two feet nine inches, which will serve very well for the beginning of the season, and for wood-shooting; the other about three feet three inches, for open-shooting after *Michaelmas*, the birds by that time are grown so shy, that your shoots must be at longer distance. But if you intend one gun to

to ſerve for all purpoſes, then a three-feet barrel, or thereabouts, is moſt proper.

You ſhould always have it cocked in readineſs, holding your thumb over the cock, leſt it ſhould go off when you would not have it.

It is generally accounted the beſt way to aim at the head, if the game flies over your head; but to aim as it were under the belly, if it flies from you; and it will be beſt to let the game fly a little paſt you before you let fly, for ſo doing the ſhot will the better enter the body. Shot delivered from a gun in general loſe or decreaſe half the quantity every ten yards, or thereabouts; ſo that at forty yards there will not be thrown in above a fourth of what would be into the ſame ſpace at twenty yards. From which it appears, that if you take aim a foot before a croſs ſhoot at forty yards, you will be the moſt likely to meet the bird with the centre ſhot; and which is looked upon to fly the ſtrongeſt, and to be the more efficacious at long diſtances, than the diverging ſhot; for whether it be the ſhot ſtriking againſt each other, or againſt the air, at firſt coming out of the muzzle, or whatever be the cauſe of their diverging, it muſt in ſome degree retard their motion. But if there be a briſk wind, it will certainly bend the courſe of the ſhot; you muſt therefore conſider, whether the wind blow with the bird, or againſt it, if it blow with it, you need little more than to obſerve the general rule; becauſe the wind helps the bird forward nearly as much as it diverts the ſhot: but if it fly againſt the wind, the ſhot declines more than the bird is retarded, and therefore you ought to take aim at a greater diſtance before the bird.

One good pointer in the field at a time, if you have patience to attend him, will be ſufficient for two men to ſhoot with; but if you have an old ſpring ſpaniel, that is ſo well under command that you can always keep him near you, ſuch a dog may be uſed with your pointer with great advantage: as he will better find birds that are wounded, and alſo ſpring ſuch as are near you, which you otherwiſe might paſs. But if you ſhould be fond of hunting many pointers together in a field, as is frequently done, you ſhould not have more than one amongſt them, who has been taught to fetch his game; leſt by endeavouring to get it from each other, they ſhould tear it.

Two perſons in the field with guns are better than more at partridge ſhooting; who ſhould with patience pay a due attention to each other. When your dog points, walk up without any hurry, ſeparating a few yards one to the right the other to the left of your dog: if a covey ſprings, never ſhoot into the midſt of them, but let him on the left ſingle out a bird which flieth to the left, and him on the right a bird to the right, that you may not interrupt each other, nor both ſhoot at the ſame bird, and readily let fly at the firſt aim. Let each of you mark the fall of his bird, and immediately run to the place; and if the dog does not ſecure it, or the bird ſhould be only wounded, and have run, put him upon the ſcent; but if your dog underſtands his buſineſs, and will fetch his game, it is better to truſt to him, and load again as quick as you can. It will always be of great uſe, and ſave much time and trouble, to have a perſon without a gun, to mark the flight of the birds.

If a ſingle bird be ſprung, let him take the ſhoot to whoſe ſide it flies: the bird being killed, cauſe your dog to lie by it whilſt you load, leſt he ſpring other birds that are near you.

If you trace the birds to a hedge, double the row by walking one on each ſide, taking your dog on the ditch ſide: here, if you have a ſpaniel, he will be of great uſe; as you may make him go along in the ditch, and your pointer on the other ſide; by which means you will not paſs a bird, and one of you will moſt likely get a good ſhoot at it. Your own judgment, with very little experience, will beſt direct where the birds are moſt likely to be found at different times of the day, according to the grounds you have to hunt in.

A fowling-piece ſhould not be fired more than twenty or five-and-twenty times without being waſhed; a barrel, when foul, neither ſhoots ſo ready, nor carries the ſhot ſo far, as when clean. The flint, pan, and hammer, ſhould be well wiped after each ſhot; this contributes greatly to make the piece go off quick, but then it ſhould be done with ſuch expedition, that the barrel may be reloaded whilſt warm. The flint ſhould be frequently changed, without waiting until it miſſes fire before a new one is put in. Fifteen or eighteen ſhots, therefore, ſhould only be fired with the ſame flint; the expence is too trifling to be regarded, and by changing it thus often much vexation will be prevented. A gun, alſo, ſhould never be fired with the prime of the preceding day; it may happen that an old priming will ſometimes go off well, but it will more frequently contract moiſture and fuze in the firing; then the object will moſt probably be miſſed, and that becauſe the piece was not freſh primed.

Some attention is requiſite in loading a piece; the powder ſhould be only ſlightly rammed down, for which purpoſe, it is ſufficient to preſs the ramrod two or three times on the wadding, and not (as the uſual practice is) to ram down the wadding by main force, by drawing up the ramrod, and then returning it into the barrel with a jerk of the arm, many ſucceſſive times. For, by compreſſing the powder in this violent manner, ſome of the grains will neceſſarily be bruiſed, whilſt the exploſion will not be ſo quick, and the ſhot will be ſpread wider.

In pouring the charge of powder into the barrel, care ſhould be taken, to hold the meaſure as much as poſſible in a perpendicular line, that the powder may the more readily fall to the bottom. It is even of ſervice to ſtrike the butt-end of the gun gently on the ground, in order to detach thoſe grains of powder, which, in falling down, adhere to the ſides of the barrel.

The ſhot ſhould never be rammed down tight: after having given a ſtroke on the ground with the butt-end of the gun, in order to ſettle it, the ſame as for the powder, the wadding ſhould then be gently put down, but much leſs cloſe than that over the powder; for, when the ſhot is wadded too tight, it ſpreads wide, and the piece will recoil. In this, therefore, as well as in every other mode of loading, the ſportſman ſhould never carry

carry his gun under his arm, with the muzzle inclined to the ground; that practice at all times loosens the wadding and charge too much, sometimes produces the loss of shot, and always indicates laziness in the shooter, and indifference to the sport.

When the piece is fired, it should, if possible, be reloaded immediately, whilst the barrel is warm, lest by delaying it a certain moisture should be formed in the barrel, which would retain a part of the powder when pouring in the charge, and hinder it from falling to the bottom. Powder, also, will imbibe moisture from the air, and therefore it is of additional advantage to load the piece whilst the barrel is warm, because some part of the moisture will be thereby evaporated. For the same reasons, the sportsman should fire off a little powder before he loads the first time; for it has been found, even in the dryest seasons, that the coldness of the barrel, and perhaps some little moisture condensed in its cavity, have sensibly diminished the force of the powder in the first discharge.

Some sportsmen prime before they load: this may be proper when the touch-hole is enlarged, and the barrel is very thin at that place, because, in that case, if the piece is not first primed, it will in loading prime itself, which diminishes the charge; but, when the touch-hole is of its proper size, the piece should never be primed until after it is loaded; for then it will be known, from the few grains of powder which usually make their way into the pan, that the touch-hole is clear and unobstructed; and, on the contrary, if no grains come through, that it will be proper to strike the butt-end of the gun smartly with the hand, and to prick the touch-hole until they appear. But, whether the practice is to prime before or after loading the piece, it is highly proper, after every discharge, to prick the touch-hole, and, what is still better, to guard against all remains of fuze or squib, by inserting into the touch-hole the feather of a partridge's wing, which will not only clear it of these dangerous remains, but, if the piece is delayed to be re-charged, will take away all humidity that may be contracted there.

Every sportsman has his own manner of bringing his gun up to his shoulder, and of taking aim; and each follows his own fancy with respect to the stock of his fowling-piece, and its shape. Some like it long, others short; one prefers it straight, another bent. And, although there are some sportsmen, who shoot equally well with pieces stocked in different ways and shapes, yet certain principles may be laid down, as well upon what is the proper length, as upon the proper bent, that the stock of a gun should have. But in the application, those principles are very frequently, nay most commonly, counteracted, by the whim or the particular convenience of the shooter. Generally speaking, however, it is certain, that, for a tall, long-armed man, the stock of a gun should be longer than for one of a less stature and shorter arm. That a straight stock is proper for him who has high shoulders, and a short neck; for, if it be much bent, it would be very difficult for him, especially in the quick motion required in shooting at a flying or running object, to place the butt of the gun-stock firmly to the shoulder; the upper part alone would in general be fixed, which would not only raise the muzzle, and consequently shoot high, but make the recoil more sensibly felt, than if the whole end of the stock were firmly placed on the shoulder. Besides, supposing the shooter to bring the butt home to his shoulder, he would scarcely be able to level his piece at the object. On the contrary, a man with low shoulders, and a long neck, requires a stock much bent; for, if it is straight, he will, in the act of lowering his head to that place of the stock at which his cheek should rest, in taking aim, feel a constraint, which he never experiences, when, by the effect of the proper degree of bent, the stock lends him some assistance, and, as it were, meets his aim half-way.

Independent, however, of these principles, the application of which is subject to a variety of modifications; we venture to advise the sportsman in the choice of a fowling-piece, that a long stock is preferable to a short one, and at the same time rather more bent than usual; for a long stock fits firmer to the shoulder than a short one, and particularly so when the shooter is accustomed to place his left hand, which principally supports the piece, near to the entrance of the ramrod into the stock.

The practice of placing that hand near the bridge of the guard is, undoubtedly, a bad one; the aim is never so sure, nor has the shooter such a ready command over his piece, as when he places his hand near the entrance of the ramrod, and, at the same time, strongly grasps the barrel; instead of resting it between his fore-finger and thumb, in conformity with the general custom. It may, therefore, be depended upon, that a stock bent a little more than ordinary is better for shooting true than one too straight, because the latter, in coming up to the aim, is subject to the inconvenience of causing the sportsman to shoot too high.—We would also advise him to have his fowling-piece a little elevated at the muzzle, and the sight small and flat; for the experienced well know, that it is more usual to shoot low than high. It is, therefore, of service that a piece should shoot a little high, and then, the more flat the sight, the better the line of aim will coincide with the line of fire, and in consequence the gun will be less liable to shoot low.

The method by which to avoid missing a cross-shot, whether it be flying or running is, not only to take aim before the object, but likewise not involuntarily to stop the motion of the arms, at the moment of pulling the trigger; for the instant the hand stops in order to fire, although the space of time is almost imperceptible, the object, if a bird, gets beyond the line of aim, and the shot will fly behind it; and if a hare or rabbit is shot at in this manner, whilst running, and especially if at a distance, the animal will only be slightly struck in the buttocks, and will be taken but by hazard. When a bird, however, is flying in a straight line from the shooter, this fault can do no harm; the object can scarcely escape, if the piece be but tolerably well directed, unless, indeed, it is fired at the moment the game springs, and before the birds have taken a horizontal flight. In that case, if the hand should stop ever so

so little at the instant of firing, the sportsman will shoot low, and inevitably miss the mark.

It becomes, therefore, extremely essential to accustom the hand, in taking aim, to follow the object, without suspending the motion in the least degree, which is a capital point towards acquiring the art of shooting well: the contrary habit, which it is very difficult to correct, when once contracted, prevents that person from attaining perfection in the art, who, in other respects, may eminently possess quickness of sight and steadiness of aim.

Nor is it less essential in a cross-shot to aim before the object, in proportion to its distance, at the time of firing. If a partridge, for instance, flies across at the distance of thirty or five-and-thirty paces, it will be sufficient to take aim at the head, or, at most, but a small space before. The same rule will nearly hold in the cases of shooting quails, woodcocks, pheasants, or wild ducks, although those birds move their wings slower than the partridge. But, if the object is fifty, sixty, or seventy paces distant, it then becomes necessary to aim at least half a foot before the head. The same practice should be observed in shooting at a hare or rabbit, when running in a cross direction, making due allowance for the distance, and for the swiftness of the pace, which is not always the same. It is also proper, in shooting at an object very distant, to take aim a little above it, because shot, as well as ball, have but a certain range in point blank, beyond which, each begins to describe the *curve* of the *parabola*.

When a hare runs in a straight line from the shooter, he should take his aim between the ears, otherwise he will run the hazard either of missing, or at least of not killing dead, or, as it is sometimes called, "*clean*." A true sportsman, who has the ambition of shooting well, is not content with only breaking the wing of a partridge, or the thigh of a hare, when he shoots at a fair distance: for, in such case, the hare, or the partridge, ought to be shot in such a manner that it should remain in the place where it falls, and not require the assistance of dogs to take it. But, if he shoots at a great distance, it is no reproach that the partridge is only winged, or the hare wounded, so that it cannot escape.

Practice soon teaches the sportsman the proper distance at which he should shoot. The distance at which he ought infallibly to kill any kind of game, with patent shot (No. 3) provided the aim be well taken, is, from twenty-five to thirty-five paces for the footed, and from forty to forty-five paces for the winged game. Beyond this distance, even to fifty or fifty-five paces, both partridges and hares are sometimes killed, but, in general, the hares are only slightly wounded, and carry away the shot; and the partridges, at that distance, present so small a surface, that they frequently escape untouched between the vacant spaces of the circle. Yet it does not follow that a partridge may not be killed with No. 3, patent shot, at sixty, and even seventy paces distance; but then these shots are very rare.

Those who know the range of a fowling-piece, and the closeness of its shot, shrug up their shoulders at the romances of those sportsmen, who, by their own accounts, daily kill, with shot (No. 3) at the distance of ninety and one hundred paces. Nay, some even go so far as to assert, that they have killed, with this sized shot, hares at one hundred and ten paces, and pheasants at one hundred and twenty. It cannot, however, be denied, that with shot No. 5, a man may have killed a hare or a partridge at one hundred and ten, or possibly at one hundred and twenty paces; but then these shots are so extraordinary, and occur so seldom, that the whole life of a sportman will scarcely afford more than two or three instances; and, when it does happen, it will be found to be by a single pellet, which, by great chance, has hit either the wing or the head of the partridge, or has struck the head of the hare, by which it is stunned, or, perhaps, has penetrated the small part of the shoulder, where there is, to prevent the wound being mortal, only a very thin skin, which, being stretched by the animal in running, is thereby rendered more easy to be pierced with the shot.

For expertness in finding the game, a sportsman must pay attention to the difference of the seasons, and the weather; to the temperature of the air, and even to those hours of the day which are more or less favourable for shooting. In warm weather he should hunt for the game in plains and in open grounds, at the same time bearing in mind, that, during the heat of the day, the birds frequent moist places, marshes where there is little water and much high grass, the sides of rivers and brooks, and hills exposed to the north. But, in cold weather, they will most commonly be found on little hills exposed to the south; along hedge-rows, among the heath, in stubbles, and in pastures where there is much furze and fern. In hard frosts they get into thickets, low places, and marshes, where they seek to shelter themselves from the cold, as well as the heat, in different seasons. The greatest part, however, of these rules will only apply when the weather is extremely hot or severely cold, at both of which times the hares and partridges almost totally desert the plains and open grounds. The game is more easily approached, or, in the language of sporting, "*lies better*," in covert than in open places: a double advantage is therefore obtained by hunting for them in the former.

He should, at all times of the shooting-season, go out in the morning before the dew is off. At that time the shepherds and their flocks, the husbandmen and their teams, have not entirely spread over the fields, and have as yet sprung but a small quantity of game; the scents of the preceding night will also be more warm, and the dogs will hit them off better. Besides, if he is not early, he loses such opportunities of shooting as he will not meet again during the remainder of the day. All these advantages, therefore, greatly counterbalance the notion generally received, that, as the birds will not lie well while the ground is wet, the sportsman should not go out early in the morning, or before the dew is gone off.

The colour of the dress which the shooter should wear is worthy notice. Green is unquestionably the best in the early part of the season, whilst the leaves remain on the

the trees. For, if he is clad in a glaring colour, when the face of the country retains its verdure, the game will perceive his approach more easily, and from a greater distance. In winter, for the same reason, his dress should be composed of a dark brown, or some colour resembling that of the dead leaf.

It is best to hunt as much as possible against the wind, not only to prevent the game from perceiving the approach of the sportsman and his dog, but also to enable the dog to scent the game at a greater distance. We say as much as possible, because in advancing and returning upon his steps, in order to range the ground well, the shooter cannot always keep the advantage of the wind. When, therefore, it is proposed to hunt any particular tract of country, in which game is expected to be found, it is indispensably necessary to take the wind, and it behoves the shooter to range and quarter his ground in such manner and direction as to preserve it in his favour.

He should never be discouraged from hunting and ranging the same ground over and over again, especially in places covered with heath, brambles, high grass, or young coppice-wood. A hare or rabbit will frequently suffer him to pass several times within a few yards of its form, without getting up. He should be still more patient, when he has marked partridges into such places; for it often happens, that, after the birds have been sprung many times, they lie so dead, that they will suffer him almost to tread upon them before they will rise. Pheasants, quails, and woodcocks, do the same.

He should always keep a sharp eye, and carefully look about him, never passing a bush or a tuft of grass without examination; but he should never strike either with the muzzle of his gun, for the reasons assigned where we speak of wadding. It is also proper to stop every now and then; for this interruption of motion frequently determines the game to spring, which would otherwise have suffered him to pass. He who patiently beats and ranges his ground over and over again, without being discouraged, will always kill the greatest quantity of game; and, if he is shooting in company, he will find game where others have passed without discovering any. As soon as he has fired, he should call in his dog, and make him lie down until he has re-loaded his piece; for, without this precaution, he will frequently have the mortification to see the game rise when he is not prepared to shoot.

In shooting in an open country, one of the most essential points to be observed is, to mark the place where the partridges alight; therefore, when he has killed his bird, he should not immediately run to pick it up, or attend to make his dog bring it to him, but he ought to follow the others with his eye, until he sees them settle, or as far as his sight can extend, without interruption from a wood or a hedge. In the latter case, although he has not been able to distinguish the exact spot on which they have alighted, yet he may tolerably well guess whereabout they are, especially if he is acquainted with the country in which he is shooting. And, when two or more sportsmen shoot in company, each should mark the birds which fly on his own side.—The rules of conduct which we have just laid down in shooting partridges will with equal propriety apply to all the feathered game.

Of Shooting Hares and Rabbits.

According to naturalists the hare lives six or seven years, and attains its full growth in one. From the first year it engenders at all seasons, and has no particular time for coupling with the female. Yet it is observable, that, from the month of *December* to the month of *March*, the buck seeks the doe more frequently, and about that time the greatest number of leverets are found. The doe goes with young thirty or one-and-thirty days, and brings forth one, two, three, and sometimes four, young ones, which she kindles in a tuft of grass or heath, or in a little bush, without any preparation whatever. When there are several leverets at a birth, it is said that the whole are invariably marked with a star on the forehead, and when there is but one it is also said that it never has this mark.

Several authors of natural history have asserted, that all, or the greatest part of hares, were hermaphrodites. We are astonished to find it advanced in one book (amongst many others) which treats of modern sport, "That the male hare engenders in its own body, but never brings forth but one leveret." It is remarkable also, that the ancient LEGES WALLICÆ affixed no fine for the killing of a hare, for this singular reason, that it was believed every other month to change its sex.

The circumstance which seems to have given rise to this strange conjecture, is the formation of the genital parts of the male hare, whose testicles do not appear on the outside of the body, especially when he is young, being contained in the same cover with the intestines. Another reason is, that on the side of the penis, which is scarcely to be distinguished, there is an oblong and deep slit, the orifice of which much resembles the *vulva* of the female. This equivocal conformation makes it difficult to know the sex of the hares by the inspection of the genital parts; sportsmen therefore seldom refer thither in order to distinguish the male and female, but resort to other marks which point them out more easily. Thus the head of the male is more short and round, the whiskers longer, the shoulders more ruddy, and the ears shorter and broader, than those of the female; the head of which is long and narrow, the ears long and sharp at the tip, the fur of the back of a grey colour inclining to black, and, in point of size, is larger than the male.

The male hare, or buck, when he is hunted with hounds, after making one or two rings, generally runs straight forward; he goes a great way, and makes a long chase. The doe runs less, she dodges about the place she inhabits, and more frequently doubles. When a hare is espied on the form, if the manner in which the ears lie is observed, it may be known whether it is a buck or doe. If a buck, the ears will be drawn close upon the shoulders, one against the other; but if a doe, the ears will be open and distended on each side of the neck and shoulders.

Two species of hares may be distinguished; those of the wood, and those of the plain. The hares of the wood, are in general, much larger than those of the open ground, their fur is not of so dark a colour, and they are better covered with it; they are also swifter in the chase, and their flesh is of a better flavour. Among the hares of the plain, those may be distinguished which inhabit the marshes. They are not so swift of foot, they are less covered with fur, and their flesh is not so fine and delicate.

A young hare, that has attained the full growth, is known from an old one by feeling the knee-joints of the fore-legs with the thumb-nail. When the heads of the two bones which form the joints are so contiguous that little or no space is to be perceived between them, the hare is old. If, on the contrary, there is a perceptible separation between the two bones, the hare is young, and is more or less so, as the two bones are more or less separated. It may also be known whether a hare is young or old, but without pretending to ascertain the precise age, by compressing the under jaws: if they break at the point immediately under the fore-teeth upon a slight degree of pressure, the hare is certainly a young one; but, if considerable force is required, the contrary is as certain.

If a sportsman finds a hare on her form, and wants to come near her, he must not go towards her in a straight line, but approach circularly, otherwise she will start up. If she starts up at a distance, it is often of use to follow her with the eye, because she will sometimes squat down; and then, if she is left for a little space of time, she may be approached near enough to be shot on the form. But if she is perceived to enter a copse, or small wood, it is still better; in that case, the sportsman should cast his dogs through the part of the wood where he conceives it probable she has clapped down, and then he may wait for her on that side of the wood at which he thinks she will come out.

An old rabbit is distinguished from a young one by the same signs which we have described in speaking of the hare. No sport is more pleasant and easy than that of hunting rabbits, with one or two terriers, in a warren which is tolerably well stocked; especially if the terriers are wry-legged. For, in that case, the rabbits only play before the dogs, stopping at each instant to listen to them, and suffering themselves to be driven about sometimes for the space of three-quarters of an hour before they take burrow. Then, as these animals run about in small compass, it is very easy to come in their way, either in the passes, or the sides of the woods, by following the cry of the dogs; or else by waiting for them at the burrows, about which they generally play for some space of time before they take the earth.

The rabbit is very timid, and very acute of hearing; for which reason, care should be taken to make as little noise as possible, and in particular never to walk or run in the passes or across the woods, to get before them, but at those times only when the dogs give tongue; for then the rabbit, being occupied either with listening to the dogs, or running before them, pays less regard to the noise which the sportsman makes in the pursuit.

In a warren of small extent, much amusement may be procured by stopping up all the burrows at midnight, at which time the rabbits are almost all out at feed, and then going to hunt them the next morning: by thus cutting off their retreat, a man cannot fail to kill several. Or he may stop up the burrows with hay, grass, or any other material, at the distance of two feet from the mouth downwards, and then, when the rabbits are driven in by the dogs, he may take as many as he pleases.

Rabbits are hunted with dogs at all times of the year, but the months of *July* and *August* are the most favourable: they then abound, and are of a good size: some have attained their full growth, and the smallest are half grown: earlier than this they are scarcely worth the trouble of shooting, and the dogs hunt them badly, because they do nothing but dodge about little bushes, not being in a condition to defend themselves.

Skill and practice, but above all quickness, are eminently necessary to shoot rabbits in a wood, either when the rabbit is hard run by the dogs, or at the moment of starting up, or in a view; and still more so, when pursued by a spaniel who has struck at but missed her. If at this time the rabbit crosses a road, or a pass cut through a wood, she darts like lightning, and scarcely gives the shooter time to prepare himself, unless the way is very broad.

It is also very difficult to shoot her when she gets up from among his feet, whether in a wood, or in places covered with heath or brambles which adjoin the warren, and where they are most commonly found. The course of the rabbit, for some little time at the first, is much more rapid than that of the hare, and is at the same time more oblique and twisting. It seems to glide rather than run, and the proper moment of shooting it is not easily seized.

If at any time of the day, but principally from nine in the morning until noon, and again in the evening (about sun-set), the sportsman posts himself near some well-frequented burrows, either by getting up into a tree, or lying behind a hedge, he will soon see them come out of their holes and play about the edges, at which time he may shoot them to great advantage. Or he may in the evening watch those pieces of corn-land which lie near the warren; for thither the rabbits are certain to go at that time to feed. Rabbits, being accustomed to run about much during the night, may be shot by moonlight, by watching at those places where they come to play or feed. Or a ferret may be put into the burrows, and the rabbits shot as they bolt out; but this requires great quickness in the shooter.

Of Partridge Shooting.

Partridges pair in the spring, but at an earlier or later period, in proportion as the season is more or less mild. When the weather in the month of *January* is mild, they are found in pairs; but then, if the cold weather returns, they again form in coveys. The hen partridge lays her eggs during the whole of the month of *May*, and the beginning of *June*. Her nest is made upon the ground,

ground, and consists only of a few blades of grass, constructed without art, at the edge of a corn-field, in a meadow, a heath, &c. She lays from fifteen to twenty eggs. The earliest birds begin to fly towards the latter end of *June*. From this state of growth their plumage undergoes a variety of changes, until the period arrives when red and blackish feathers begin to form the *horse shoe* upon the breast; which is very conspicuous on the male, but less distinguishable on the female: this mark takes place about the beginning of *October*, and it is not until that is perfect that they can properly be called *partridges*.

The young birds at this time, when the plumage is complete, can only be distinguished from the old ones by the first feather of the wing, which terminates in a point like a lancet; whereas in those which are not of the last brood this feather is round at the extremity. This distinction remains until the first moulting, which generally takes place in the *July* following. A further difference is also observable in the colour of the legs, which in the young ones are yellow, and in the old grey. The difference between the male and the female, when the partridges have attained their full growth, consists in the *horse-shoe* which we have before noticed, and in an obtuse spur on the hinder part of the leg: the male only has this protuberance, and he is besides a little larger than the female.

Partridges are not equally abundant every year; their number depends in a great measure upon the mildness of the weather, not only at the time of laying the eggs, and the season of incubation, but also when the birds are hatched: this period of time is, for the most part, from the end of *April* to the middle of *June*.

In general, when the season is dry at this period, the birds are very numerous; but, on the contrary, when the rains have been heavy and frequent during the time of laying and incubation, the nest, which the partridge prefers to make in low places, is destroyed by the floods; an event which would not probably have happened, if the rains had set in sooner; for in that case the partridge, finding the plains and low places too wet, would have chosen to build her nest in a dry elevated situation. If the rains happen at the time when the young birds come out of the shell, many of them, which have scarcely strength at that time to stand, will be drowned. A wet season also destroys the ants, which are the chief food both of young partridges and pheasants. At such time even drought, when it is in a certain degree, is unfavourable to them; for then the ground cracks and forms crevices, into which they fall and perish, being too weak to extricate themselves.

The old partridge has also many dangers to encounter, from the time of laying her eggs until the young ones are hatched; and these arise as well from weazels and other vermin, crows, magpies, and shepherds dogs, (all of which suck their eggs,) as from the shepherds and farmers themselves, who will never cease to destroy the eggs while the present system of game-laws subsists: so that, except in those manors which are well preserved, there is reason to suppose that one-half of the broods in any one year are never reared. When the eggs of a partridge are destroyed in any of these ways, it sometimes happens that she lays again; therefore, when at the end of *September*, and even later than that, young birds are found not perfectly feathered in the tail, they are of this second hatching, or, as it is sometimes termed by sportsmen, *clacking*.

Whilst the birds are young, that is to say, until the middle of *October*, it is easy to shoot them, in a country tolerably well stocked; but after that period, and especially when they have tasted the green wheat, they fly far, and are very wild: they are not to be separated but by dint of following them down, particularly in a flat country, where there are neither roughs nor thickets; and it is only by breaking the covey that we can indulge a reasonable hope of success; for while they remain in the covey, we can scarcely get within gun-shot of them. Thus it is more essential in this sport, than in any other, that the shooter should have good legs and eyes: the legs, to tire the birds, and break the covey by an incessant pursuit; and the eyes, to mark them down with a certainty.

When a sportsman is shooting in a country where the birds are thin, and he no longer chooses to range the field for the bare chance of meeting with them, the following method will shew him where to find them another day. In the evening, from sun-set to night-fall, he should post himself in a field, at the foot of a tree or bush, and there wait until the partridges begin to call or *juck*, which they always do at that time; not only for the purpose of drawing together when separated, but also when the birds composing the covey are not dispersed. After calling in this manner for some little space of time, the partridges will take a flight; then, if he marks the place where they alight, he may be assured they will lie there the whole night, unless disturbed. Let him return to the same post by break of day, and there watch a while; being careful to keep his dog in a string, if he is not under perfect command.

As soon as the dawn begins to peep, the partridges will begin to call, and soon afterwards will perform the same manœuvre as on the preceding evening; that is to say, after having called a while, they will take their flight, and will most commonly settle at a little distance. There, in a few minutes, they will call again, and sometimes take a second flight, but that will be to no great distance. Then, as soon as the sun is risen, and the sportsman can see to shoot, he may cast off his dog, and pursue them.---In snow it is very easy to kill partridges on the ground before a setting-dog or pointer; because the colour of the birds, contrasting with the whiteness of the snow, makes them perceivable at the first glance. Then the poachers have fine sport, especially if the snow happens at the full of the moon. At this time they will be out the whole of the night, with shirts over their clothes, and white caps on their heads; and then, as the partridges lie in a cluster, they frequently destroy half the covey at one shot. Thus snow may be accounted the most fatal time for partridges; for, if it lasts but a little while, they are exposed to the wiles of the poacher, and if for a long time, they perish with hunger.

As one-third more of male than female partridges are bred in a ſeaſon, it happens that, in the time of pairing, ſeveral cocks contend for the ſame hen, who, being thus tormented, will ſometimes totally leave the diſtrict; or, if ſhe remains, being thus obliged to run continually about, in order to avoid the purſuit of the males whom ſhe hath repulſed, ſhe drops an egg in one place, and an egg in another, until at length there remains for her but one cock, and no neſt. It would therefore much increaſe the broods of partridges, to kill a part of the cocks when they begin to pair; but as this could only effectually be done after the time limited for ſhooting them in this country expires, we muſt neceſſarily omit giving any inſtructions on the ſubject. There are, however, ſome few ſportſmen in England, of ſuch keen eyes, that they can diſtinguiſh the cocks from the hens when the covey riſes from the ground, and ſo expert, as to make it the pride of their dexterity, to kill not more than a brace of hens in one day's ſport.

Of Pheaſant Shooting.

Theſe birds generally lay their eggs in the woods, the number of which is commonly ten or twelve. The ſeaſon of the young pheaſants nearly correſponds with that of the partridges. The pheaſants of the firſt year are marked in the wing like partridges. The cock, whoſe plumage is completed the firſt year, is in like manner known by the ſpurs, which in him are round and blunt, but long and ſharp in the old one. The hen has alſo a ſmall ſpur on the hinder part of the leg, which is very ſmall in thoſe that are young, and larger and more prominent in the old; but this happens in a greater or leſs degree, in proportion to the age of the bird. Beſides, in the young ones, the ſpurs are ſurrounded each with a ſmall black circle, which does not diſappear until the ſecond hatching. The legs of thoſe which are very old, that is to ſay, of ſuch as have attained five or ſix years, are more wrinkled, and of a darker colour, than thoſe of the young ones in the firſt year; the cryſtal of the eye of the former is alſo more yellow, whilſt that of the young ones of the firſt and ſecond year is white. But all theſe marks and ſigns are not without many exceptions. The leaſt equivocal mark, perhaps, is the beak, which feels more tender in the young than in the old birds.

Pheaſants are accounted ſtupid birds; for when they are ſurprized they will frequently ſquat down like a rabbit, ſuppoſing themſelves to be in ſafety as ſoon as their heads are concealed; and in this way they will ſometimes ſuffer themſelves to be killed with a ſtick. They love low and moiſt places, and willingly haunt the edges of thoſe pools which are found in woods, as well as the high graſs of marſhes that are near at hand; and, above all, places where there are clumps of alders. The inſtinct of theſe birds is not of a nature ſo ſocial as that of the partridge. As ſoon as they find that they have no further occaſion for the care of the hen-mother, they ſeparate from her, and live in ſolitude; ſhunning one another at all times, except in the months of *March* and *April*, the ſeaſon at which the male ſeeks the female.

During the day-time, pheaſants remain upon the ground among the underwood, from whence they frequently iſſue forth into the ſtubbles, and the fields lately ſown; but it is only in countries where they are in great plenty, that they thus ſhew themſelves in the open grounds. At ſun-ſet, the greateſt part of them fly up into the long branches of oak-trees, in order to rooſt all night, and, at the time they do this, they invariably make a noiſe, which is called *cocketting*; and that in a greater degree during the winter ſeaſon: ſo that poachers who lie in wait for them in the evening, are warned by the noiſe of the place where they are perched; and, when the night is advanced, repair under thoſe trees which the birds have choſen, and there ſhoot them with the greateſt eaſe: for at this time the pheaſants will permit them to come as near as they pleaſe; and will ſometimes even permit the poacher to fire more than one ſhot, before they will leave the tree.

The pheaſant is alſo frequently taken when thus perched upon a tree, by holding a lighted match under him; ſo that the fumes of the ſulphur reaching him, he falls ſuffocated to the ground. Monſieur du Pratz, in North America, hit upon a very ingenious expedient for taking the paſſenger pigeon on the rooſt, by placing under the trees veſſels filled with flaming ſulphur; the fumes of which aſcending, brought them ſenſeleſs to the ground in perfect ſhowers.

For pheaſant-ſhooting, pointers that are bold-ſpirited, and have been a great deal uſed to this work, will follow a pheaſant very well; but from the generality of ſlow ſtaunch pointers, a pheaſant will get off ſo faſt, as, when ſprung, to be out of the reach of gun-ſhot; for which reaſon ſpaniels are often uſed. The ſpaniels proper for this work are of a middling ſize, their legs rather ſhort, and very ſtrong: they muſt be hardy, able to bear great fatigue, diſpoſed to go into cover freely and undauntedly, to hunt very briſkly, and yet go very ſlow when upon ſcent of game. You cannot begin too early with theſe dogs, to teach them to fetch a bird and bring it after you; which will prevent them getting a habit of tearing or breaking the game. One of this kind muſt be always obliged to lie down whilſt you load; and as his buſineſs is to ſpring game, you ſhould never ſuffer him to go above ten or fifteen yards from you; and therefore take him out with others that are brought under command, as ſoon as he is able to hunt. For, to have good ſpaniels, they muſt be uſed a good deal. If you find any difficulty in keeping him to hunt near you, put one of his feet into his collar, and hunt him ſo for an hour or two. Frequent repetitions of this puniſhment will bring him to a ſenſe of his duty. One, two, or three brace of ſpaniels, well broken, may be uſed together; and they will find work enough in a large wood or thick cover. If two perſons intend hunting in a wood, it is beſt for one to go round it on the outſide firſt, whilſt the other goes oppoſite to him a little way into the wood, and afterwards to ſink in deeper, as you ſhall find occaſion: unleſs you know the

the moſt likely part to find game in, in which caſe you may hunt the interior part firſt. Some perſons, when they want to hunt a very large wood, approve of taking a brace of high-mettled ſpaniels that have not been broken to hunt cloſe, and turn them into the middle of the wood; whilſt they, with their well-broken ſpaniels, hunt outwards. But, unleſs, you have any extenſive woods to hunt, ſuch dogs are more likely to hinder than add to your ſport; and it will be better to hunt with patience with only ſuch dogs as are under good command, let the woods or cover be ever ſo large. In hedge-rows, or in open hollow covers, a brace of high-mettled pointers are by far the beſt for this ſport.

Of Shooting the Grouſe, or Muir-Game.

Theſe are found in ſome parts of the northern counties in *England*, in parts of *Wales*, and in the *New Foreſt*, in *Hampſhire*; but in neither of theſe countries are they at this day very numerous. In *Scotland*, however, and particularly the vicinity of the *Grampian* mountains, they abound in ſuch ſort, that a tolerable ſhot may kill from twenty to thirty brace a day, for the firſt three weeks of the ſeaſon, provided the weather is favourable. An excurſion, therefore, into that country in the grouſe ſeaſon, affords the keen ſportſman a noble entertainment. This ſpecies of ſport is ſo perfectly ſimilar, in all its operations, to that of partridge ſhooting, that it will be unneceſſary for us to ſay more on the ſubject, other than to deſcribe ſome of its habits.

The grouſe is larger than the partridge, and weighs about nineteen ounces. The plumage is a mixture of red, black, and white, and the tail is nearly ſimilar to that of the partridge, only a little larger. The legs are clothed to the very toes, and the outmoſt and inner toes are connected to the firſt joint of the middle toe by a ſmall membrane. The bill is ſhort, arched, and of a blackiſh colour, and the eyes are encircled with two large and red eye-brows, which are compoſed of a fleſhy membrane, rounded and pinked on the upper part, and extending beyond the crown of the head. The plumage of the hen has leſs of the red and more of the white than the cock; the membrane of the eye-brow is leſs projected, leſs pinked, and of a leſs lively red. She makes her neſt on the ground, and lays from eight to ten eggs. The principal food of grouſe is black whortle-berry *(vaccinium myrtillus)* and the red whortle-berry *(vaccinium vitis idæa)*, alſo common heath-berries. It is a cuſtom in Wales to cut open the part which contains the food for young ſportſmen to ſmell; the fragrance is extremely fine. The young birds for the firſt year are called *poults*.

The grouſe inhabit thoſe mountains and moors which are covered with heath, or *heather*, and ſeldom or ever deſcends into the lower grounds. They fly in packs, conſiſting in general of four or five brace; and they love to frequent moſſy places, particularly in the middle of the day, and when the weather is warm. The old cock is known by the chocking noiſe he makes; and, when the dogs point at a brood, he is commonly the firſt bird that goes off. In purſuing this game, if, when the dogs are ſet, the ſhooter perceives the birds to erect their head and run, he may be pretty certain they will not lie very well during the courſe of that day; and the only mode by which he will be enabled to get a ſhot at them is, to run after them as faſt as he can the moment he perceives their heads, and by this means he will probably get near enough to ſhoot when they riſe upon the wing: this is found, by experience, to be the beſt method in thoſe days when the birds, either from wet, or ſome other cauſe, will not lie well to the dogs.

As the ſeaſon for ſhooting this game commences in hot weather, and the birds, when ſhot, are ſubject to grow putrid in a ſhort ſpace of time, it is highly proper, eſpecially if they are wanted to be ſent to a diſtance, that they be drawn carefully, and extremely clean, the very inſtant they are ſhot, and immediately afterwards ſtuffed with dry heather; and if the plumage happens to be wetted by the fall to the ground when the bird is ſhot, or by the tearing of the dogs, it muſt at the ſame time be wiped as dry as poſſible, before it is put into the game-bag. Before the birds are packed up to be ſent off, it is alſo proper to lay them within the moderate influence of a fire, for ſome minutes, in order to render them more perfectly dry.

Of Woodcock Shooting.

The woodcock is a bird of paſſage, and commonly arrives here about the latter end of October. Their paſſage, in different ſeaſons, is more or leſs advanced or retarded, according as the wind and weather happen to be at the beginning of the autumn. The eaſt and north-eaſt winds, and eſpecially when they are accompanied with fogs, bring them over in the greateſt numbers. At their arrival, on the firſt flight they drop any where, as well under high trees, as in copſes, in hedge rows, among heath and brambles; afterwards they take up their abode in copſes of nine or ten years growth, and ſometimes in thoſe little ſhaws which, having been cut, are left to grow for timber; for it is but ſeldom that a woodcock is found in a young copſe of more than three or four years growth. When we ſay they take up their abode, we muſt not be underſtood to mean that they remain in the wood during the whole of the winter; for it is obſerved, that they do not ſtay longer than twelve or fifteen days in one place; and that if they do remain there for a longer ſpace of time, it is in conſequence of ſome wound or hurt received. This bird riſes heavily from the ground, and makes a conſiderable noiſe with his wings. When he is found in an open field, in a hedge-row, or in the paſs of a wood, he frequently only ſkims the ground, and then, his flight not being rapid, he is eaſily ſhot. But when he is ſprung in a tall wood, where he is obliged to clear the tops of the trees before he can take a horizontal flight, he ſometimes riſes very high, and with great rapidity: in this caſe it is difficult to ſeize the moment of ſhooting, by reaſon of the turnings and twiſtings which he is obliged to make, in order to paſs between the trees. The woodcock walks very clumſily, as all birds are obſerved to do which have great wings and ſhort legs. His ſight alſo is very bad, and particularly in the day-

day-time. It is ſaid, however, that he ſees better in the duſk.

Shooting woodcocks is a very pleaſant amuſement in woods that are not too thick; and if they are cut through in ſeveral places, it renders it more eaſy to ſhoot him in his paſſage when he ſprings in the wood, and alſo to mark him with greater certainty. Beſides, this ſport is more delightful and animating, as requiring a great noiſe and clamour with men and dogs. There is a ſpecies of ſpaniels that give tongue when the cock ſprings, or when they get upon his haunt: theſe dogs are extremely uſeful, as they warn the ſportſman to be upon his guard. Pointers, in general, ſtand at the cock, which is oftentimes very inconvenient, becauſe it cannot be known what is become of the dogs, or whereabout they are; and as they will not come away when they are ſet, on being called or whiſtled to, the ſhooter has frequently to wait for them until his patience is exhauſted. To obviate this inconvenience in ſhooting cocks with pointers, ſome ſportſmen faſten a ſmall bell about the neck or the tail of each dog, by the ſound of which he may be followed in the wood; and when the ſound ceaſes, the ſhooter knows that the dog is on the point, and is thereby enabled to gueſs the place where the dog is.

In this ſport it is very material to have a good marker. With this aſſiſtance, if the wood is ſmall, it will be difficult for the cock to eſcape; for it is known, that he will frequently ſuffer himſelf to be ſprung, and even ſhot at four or five times, before he will leave the wood to go to an adjoining one, or to a hedge-row.

During the day-time the woodcock remains in thoſe parts of the woods where there are void ſpaces, or glades, picking up earth-worms and grubs from amongſt the fallen leaves. When night comes on, he goes to drink and waſh his bill at the pools and ſprings; after which he gains the open fields and meadows, where he abides during the remainder of the night, and at break of day he returns to the wood. The ſportſman may therefore advantageouſly watch at ſome opening or cut which runs through the wood, and ſhoot him in his paſſage to and from it in the morning or evening flight; for it is remarkable, that whenever a woodcock ſprings from a wood to go into the open country, he always endeavours to find ſome paſs or glade, which he follows to its opening out of the wood; and when he returns back to the wood, he in like manner purſues a way for ſome time, and then turns to the right or left, oppoſite ſome glade, in order to drop in the thick part of the cover, where he may be under ſhelter from the wind. It is in theſe openings that nets are ſpread to take the woodcocks, in their morning and evening flights. They may alſo be watched with advantage, in the morning and evening flights, at thoſe narrow paſſes and little valleys on the edges of woods, which, by their direction, lead to ſome pool, ſpring, or head of a lake. Thoſe who know the cuſtom which the woodcock has in the evening of waſhing his bill in the pools which adjoin the woods, practiſe another method of killing them; which is, by watching near thoſe pools in the duſk of the evening, in order to ſhoot them as they alight. The pools or ſprings which are moſt frequented in this manner, are always known to the neighbouring peaſants; and it is eaſy to diſcover them, on examination, by the marks of their feet on the margins.

Woodcocks remain in this country until the middle of March, and may be found all the winter ſeaſon, if the weather is not too ſevere; but if froſts happen, which laſt ſome time, they will almoſt totally diſappear, at that interval, and a few only will be found by hazard, in certain places where there are warm ſprings, which do not freeze.

A month, or thereabouts, before their departure, it is common to ſee them in pairs, at the morning and evening flights, and to hear them, when flying, make a ſmall piping noiſe; although at other times they are quite mute. Since they are found in greater numbers in the month of March than in the middle of winter, it is probable that they aſſemble at that time in order to go abroad. Both woodcocks and quails have been known to breed in the ſouthern parts of this kingdom; but the inſtances are very rare.

Woodcocks are fatteſt in the months of *December* and *January*; but from the end of *February*, when they begin to pair, to the time of their departure, they are much leaner.

Pennant, in the Supplement to his Arctic Zoology, informs us, that the female woodcock may be diſtinguiſhed from the male by a narrow ſtripe of white along the lower part of the exterior web of the outmoſt feather of the wing. The ſame part, in the outmoſt feather of the male, is elegantly and regularly ſpotted with black and reddiſh white. In the baſtard wing of each ſex is a ſmall pointed narrow feather, very elaſtic, and much ſought after by painters, as a pencil.

Of Snipe Shooting.

Snipes make their appearance here in autumn, and remain until the ſpring. It is generally ſuppoſed that they return into *Germany* aud *Switzerland* to breed. Nevertheleſs a great number remain with us during the ſummer, and breed in the marſhes, where they lay their eggs in the month of *June*, to the number of four or five. Snipes are ſcarcely worth ſhooting until the firſt froſt ſets in; and in the month of *November* they begin to grow very fat.

Theſe little birds, when they abound, afford very excellent ſport. It is remarked that ſnipes always fly againſt the wind, which is alſo the caſe with woodcocks; for this reaſon it is beſt to hunt for them as much as poſſible with the wind to the back, becauſe then they fly towards the ſportſman, and preſent a fairer mark.

The ſnipe is generally eſteemed difficult to ſhoot, by reaſon of the many turnings and twiſtings which it makes on being ſprung: but this difficulty exiſts only in the minds of inexperienced ſportſmen; for there are many birds more difficult to ſhoot flying. When once the ſhooter can accuſtom himſelf to let the ſnipe fly away, without his being in haſte, or alarmed, he will find that the flight is not more difficult to follow than that

that of the quail; and it is better to let him fly to some diſtance, becauſe the ſmalleſt grain of ſhot will kill him, and he will fall to the ground if ſtruck ever ſo ſlightly. Among the common ſnipes, ſome are larger than others. Theſe are thought to be the males. Snipes, however, are ſometimes found, which, from their extraordinary ſize, muſt neceſſarily be of a different ſpecies; but theſe are ſo rare, that they do not here require a particular deſcription.

Of Wild-Fowl Shooting.

This race of birds, if we include all thoſe which have the ſhape and conformation of the wild gooſe, duck, and teal, is extremely numerous; and there are no other birds which afford ſo many different ſpecies. But as of thoſe only the common wild duck are found in conſiderable numbers in England, we ſhall confine our deſcription principally to them.

Wild ducks are birds of paſſage, and arrive here in great flights from the northern countries in the beginning of winter. Still, however, a great many remain in our marſhes and fens during the whole year, and there breed. They pair in ſpring, and lay from ten to fifteen eggs. The duck commonly conſtructs her neſt at the edge of the water, upon ſome tuft of ruſhes which is a little elevated, and begins to lay in *March* or *April*. Her incubation is about thirty days, and the young ones are moſt commonly hatched in *May*. The growth of their wings is very ſlow; and they attain more than half their ſize before they are able to fly, which happens about the beginning of Auguſt, and near three months after the time of their being hatched. The wild duck differs little in plumage from the tame duck, but is eaſily diſtinguiſhed by its ſize, which is leſs; by the neck, which is more ſlender; by the foot, which is ſmaller; by the nails, which are more black; and, above all, by the web of the foot, which is much finer and ſofter to the touch. The young ducks of the firſt year are diſtinguiſhed from the old ones by the feet, which are more ſoft and ſleek, and of a brighter red. They may alſo be known by plucking a feather from the wing; for, if the duck is young, the root or end of the quill will be ſoft and bloody; of old, this extremity will be hard, without containing any bloody matter.

In the ſummer ſeaſon, when it is known that a team of young ducks are in a particular piece of water, and juſt beginning to fly, the ſportſman is ſure to find them early in the morning, dabbling at the edges of the pool, and amongſt the long graſs, and then he may get very near to them: it is uſual alſo to find them in thoſe places at noon. By means of a little boat they may be ſhot at any time of the day, and this method ſucceeds admirably well on ſmall pieces of water; for with the help of it they may all be killed. It may be ſtill more eaſy to effect this, if the ſportſman can contrive to kill the old duck; in that caſe he may tie a tame duck by the leg with a piece of packthread to a pin of wood driven into the ground at the edge of the pool: this muſt be done in ſuch a manner, that the duck may be able to ſwim a little way into the water. He muſt then conceal himſelf within gun-ſhot. The duck will ſoon begin to quack; and as ſoon as the young ones hear her they will come out to her, thinking it to be their mother.

If he wiſhes to take them alive, he has only to throw into the water, near to the tame duck, a few fiſh-hooks tied upon pieces of twine, and baited with pieces of the lights of a calf. The lines muſt be faſtened to pickets placed at the edge of the water. In the beginning of autumn almoſt every pool is frequented by teams of wild ducks, which remain there during the day, concealed in the ruſhes. If theſe pools are of ſmall extent, two ſhooters, by going one on each ſide, making noiſes, and throwing ſtones into the ruſhes, will make them fly up; and they will in this way frequently get ſhots; eſpecially if the pool is not broad, and contracts at one end. But the ſureſt and moſt ſucceſsful way, is to launch a ſmall boat or trow on the pool, and to traverſe the ruſhes, by the openings which are found; at the ſame time making as little noiſe as poſſible. In this manner the ducks will ſuffer the ſportſmen to come ſufficiently near them to ſhoot them flying; and it often happens that the ducks, after having flown up, only make a circuit, return in a little time, and again light upon the pool. Then the ſportſmen endeavour a ſecond time to come near them. If ſeveral ſhooters are in company, they ſhould divide, ſo that two ſhould go in the boat, whilſt the others ſpread themſelves near the edge of the pool, in order to ſhoot the ducks in their flight. In pools which will not admit a trow, water-ſpaniels are abſolutely neceſſary for this ſport, which ſhould be large ſtrong dogs.

Another good way to ſhoot ducks in winter, and eſpecially in froſt, at which time they fly about and are more in motion than any other, is to watch for them in the duſk of the evening, at the margins of little pools, where they come to feed; they may then either be ſhot whilſt they are on the wing, or at the moment in which they alight on the water. When the froſt is very ſevere, and the pools and rivers are frozen up, they muſt be watched for in places where there are warm ſprings, and waters which do not freeze. The ſport is then much more certain, becauſe the ducks are confined to thoſe places, in order to procure thoſe aquatic herbs which are almoſt the only food that remains for them at this period.

In times of great froſts, there are alſo ſmall rivers and brooks which do not freeze, and theſe afford abundant ſport. If the ſhooter follow the courſe of theſe waters at any time of the day, but particularly at an early hour of the morning, he will be certain to meet with wild-ducks, which are then frequently lying under the banks, and among the roots of trees which grow on the edges, ſearching for cray-fiſh and inſects; and the ducks will not get up until he is cloſe upon them, and ſometimes they will even lie until he has gone paſt, or are hunted up by his dogs.

Shooting Terms.

As the language of ſportſmen poſſeſſes a number of ſpecific names peculiar to itſelf, when ſpeaking of the various

various objects of their purſuit, it may not be improper to notice them in this place, as follows:

1. Covey of partridges. 2. Nide of pheaſants (commonly called *a ni.*) 3. Pack of grouſe. 4. Wiſp, or whiſp, of ſnipes. 5. Wing of plover. 6. Flock of geeſe. 7. Bevy of quails. 8. Flight of woodcocks. 9. Trip of dottrell. 10. Team of ducks. 11. Flock of buſtards.

Training of Sporting Dogs.

The dog, independent of the beauty and ſymmetry of his form, of his vivacity, and of his agility, eminently poſſeſſes all thoſe interior qualities that can gain the affections of man, whom he ſeduloſly ſeeks to pleaſe, and to whom he attaches himſelf with ſo much pleaſure and ſincerity. He approaches, in crouching and humble attitude, to lay at the feet of his maſter, his courage, his ſtrength, and his talents; he waits his commands to make uſe of them; for theſe he conſults him, he interrogates him, he ſupplicates him: a ſingle glance of the eye is ſufficient; he underſtands the ſignal of his will; he is all zeal, all ardour, all obedience: more ſenſible of kindneſs than of injury, he is neither repulſed nor diſcouraged by the worſt of treatment; he ſubmits to it, he forgets it, or at leaſt remembers it only to attach himſelf the more. Inſtead of being exaſperated, he willingly expoſes himſelf to new trials of ſeverity; he licks the hand that ſtrikes him; to it oppoſes only a mournful complaint, and at length diſarms it by patience and ſubmiſſion.

More tractable than man, the dog not only imbibes inſtruction in a ſmall ſpace of time, but readily conforms himſelf to the various motions, to the manners, and to all the habits, of the ſportſman who commands him. Of what infinite importance is the dog in the order of nature, ſuppoſing for an inſtant that he had never exiſted! Without him, how would man have been able to conquer, to ſubdue, and reduce to ſlavery, the ſavage animals of the foreſt? How could he at this day diſcover, chaſe, and deſtroy, the wild beaſts of the field? It is evident, that, to procure perfect ſafety, and to render himſelf maſter of the living univerſe, it would be neceſſary to begin by forming an union with thoſe animals whom he found capable of attachment and obedience, to the intent of oppoſing them to the others. One of the firſt arts of man hath therefore been the education of the dog; and the conſequence of this art hath been, the peaceable poſſeſſion of the earth.

Without the dog, man could not have dared pretend to ſuch a conqueſt, becauſe the greater part of animals have more agility, more ſwitneſs, more ſtrength, and even more courage, than man. Nature better provided and better armed them than him: they have ſenſe alſo, and the faculty of ſmelling in the moſt perfect degree. To have gained, therefore, a ſpecies of animals, courageous and docile as the dog, was to have acquired a new ſenſe, and faculties which were wanting to us; it was to have diſcovered great and eternal means of conqueſt; it was, in one word, to have immortaliſed the ſportſman and the art of the chaſe. After having thus become the advocate of the dog, and ſo warmly recommended him to the favour of his maſter; let not the falſe and affected friends of humanity be alarmed at the modes of diſcipline which are hereafter deſcribed, and even approved; nor perſuade themſelves to think that they are incompatible with the finer feelings, and unjuſtifiable on the principle of ſport. They are but means to prevent a greater evil; the natural faculties of the dog muſt be trained to their proper object and purpoſe; he is by nature wild and depredatory; he will ſometimes return to his natural hankering; and we venture to pronounce that the man of feeling would, at the ſight of ſheep worried in the fold, and of pigs and poultry in the farm-yard, acknowledge the truth of the old adage, and follow its dictates—"of two evils to chooſe the leaſt:" and, were he either in the ſituation of the owner of the dog, or the ſufferer by his actions, he would equally countenance the ſeverities alluded to, and acknowledge them to be ſalutary modes for the correction and prevention of ſuch vicious habits. There is, however, one circumſtance relating to the œconomy of this animal and his dependence on man, which would honourably engage the feelings and the knowledge of thoſe capable, by profeſſional education, to undertake the taſk; we mean, an inveſtigation of the various diſeaſes to which dogs are ſubject (we ſay various, becauſe we do not ſubſcribe to that old but erroneous judgment which calls every diſorder, with which a dog is afflicted, by the general name of the *diſtemper*), and thereby to form a rational ſyſtem of treatment. It is really ſurpriſing that no one has hitherto attempted this humane office; to many we are convinced it might be extremely eaſy. The whimſicality and rage of the preſent hour furniſh us with a variety of bombaſtic writers and treatiſes upon the means of prevention, as well as the method of curing diſeaſes incidental to horſes: it has alſo, in a lucky hour, given birth to a ſociety or college of Veterinarians, inſtituted for the expreſs purpoſe of improving the art of farriery, and, to this end, ſoliciting communications, from all the world, of any important information or uſeful diſcovery which may conduce to the improvement and extenſion of that branch of ſcience. As ſportſmen, may we not be permitted to ſay, that the horſe is not a more uſeful, nor a more noble, animal than the dog? For the ſake of humanity, then, and for the enlarging of knowledge, we recommend and intreat this reſpectable and uſeful ſociety to extend their plan, and to invite communication on the nature and cure of the diſeaſes to which this worthy and affectionate creature is peculiarly ſubject, and ſubject, we are ſorry to ſay, at this time, without any one rational mode of treatment for the alleviation of pain, or the removal of complaint. For him, a ſmall ſpace of time intervenes between the adminiſtration of the moſt violent, improper, and inapplicable remedies, and the more humane but ſtill brutal one of the rope. Thus is a period barbarouſly put to his various miſeries, and thus is he, to the laſt, *treated as a dog*. We are perſuaded that the diſeaſes of dogs are generally produced by the little care taken of them, and this at leaſt may be eaſily remedied.

With

With respect to breaking of dogs, there are three species capable of receiving the proper instruction, and of being trained. These are, the smooth pointer, the spaniel, and the rough pointer. The last is a dog with long curled hair, and seems to be a mixed breed of the water-dog and the spaniel. The smooth pointer is active, and lively enough in his range, but in general is proper only for an open country. The greatest part of these dogs are afraid of water, brambles, and thickets; but the spaniel and the rough pointer are easily taught to take the water, even in the coldest weather, and to range the woods, and rough places, as well as the plain. Greater dependence may therefore be had on these two last species of dogs, than on the smooth pointer.

Before you begin to break-in a dog, it will be proper, when he is only five or six months old, to teach him to fetch and carry, which may easily be done without going out of the house, by means familiar to every one. With patience and gentle treatment, if the dog is of a good breed and disposition, he will acquire the habit very easily; but much gentle usage is necessary at this time, and, if the dog should be obstinate in learning his lessons, severity and correction should be carried only to a certain point. Therefore, as you perceive him to be disheartened, let him rest, bestow caresses on him, and return to the task another time.

If, however, this task cannot be accomplished by mild treatment, you must wait until the dog is of a proper age to be regularly trained; for then, in case of great obstinacy, he will be able to bear the strong collar, and those other modes of necessary discipline.

It will, at the same time that you teach the dog to fetch and carry, also be proper to give him the first principles of obedience; which may be accomplished by walking with him a little distance from the house, and there learning him to come in, when he runs too far off; and to go behind when he returns; using, in the first case, the words, *here, come in;* and, in the latter, *back*, or *behind*. It is also highly necessary to accustom the dog, at this period, to be tied up in a kennel or stable, where you should be careful to renew his straw frequently. But, in these first essays, he should not be kept tied up too long, in consideration of his tender age, which seems to require some indulgence; he should, therefore, be let loose in the morning, and fastened up again in the evening. Dogs, which are not early accustomed to be chained up, disturb you with their howling. It is also of importance, that the person who intends to train him should alone speak to him and command him, and that none other should interfere with his education, or give him his food.

When the dog has attained the age of ten or twelve months, it will be high time to take him into the field, for the purpose of regular training. At the first you may let him do as he likes, without requiring any thing of him, the first step being only to make him know his game. He will, at this time, run after every thing he sees; crows, pigeons, thrushes, small birds, partridges, and hares. This eagerness being somewhat abated, he will end by only pursuing the partridge and hares, to the former of which his natural instinct will more particularly attach him; and, being soon tired with following after these in vain, he will be content, after having flushed the birds, to follow them with his eyes. He will not, however, do the same with hares; for seeing they have but legs like himself, and do not leave the ground like a partridge, he perceives that there is more equality with himself, and will not relinquish the hope of overtaking them: for this reason, he will continue the practice of running after hares until corrected by education; and even then, it is very difficult to prevent the most crafty and best-trained dog from pursuing hares.

All young dogs are subject to *rake*, that is, to hunt with their noses close to the ground: a habit which you should not suffer them to contract, and of which you should effectually break them betimes, if it is possible to be done; for a dog that rakes with his nose, and follows the game by the track, will never make a good pointer, nor find half so much game as one that hunts with his nose high. Whenever, therefore, you perceive that your young dog is following the track of a partridge down wind, call to him with an angry tone, hold up; he will then grow uneasy and agitated, going first on one side, and then on the other, until the wind brings him the scent of the birds. He will only have to find the game four or five times in this way, when he will take the wind of himself, and hunt with his nose high. Yet, there are dogs which it is almost impossible to break of this fault, and such are scarcely worth the training. The best method to be used with a dog of that description is, to put the puzzle-peg upon him. This is an instrument of a very simple construction, being no other than a piece of oak or deal inch-board, one foot in length, and an inch and a half in breadth, tapering a little at one end; at the broader end are two holes, running longitudinally, through which the collar of the dog is put, and the whole is buckled round his neck; the piece of wood being projected beyond his nose, is then fastened with a piece of leather thong to his under jaw. By this means, the peg advancing seven or eight inches beyond his snout, the dog is prevented from putting his nose to the ground and raking. This instrument is also proper for dogs that tear the game; and sometimes has been found to make a dog, that is too eager, and possessing the bad habit of running up to the foremost dog in the point, stand better in company.

Partridges lie much better to dogs which wind them than to those that follow them by track. The dog that winds the scent approaches the birds by degrees, and that, more or less, as he finds them either shy or tame, or, in other words, whether they will lie well, which he is enabled to know by the scent which they emit when they are uneasy; and, notwithstanding they see him hunt round abound them, they will not be alarmed, because they do not perceive that he is following them.

Nothing disturbs birds more than their seeing a dog tracing their footsteps, and keeping the same course that they are taking to steal off; and, when a dog follows them in this manner down wind, it most commonly happens that he flushes them; or, if by acci-

dent he makes a point, it will probably be much too near the birds; for, in going down wind, he cannot take the scent until he is almost upon them, and then they will not lie.

As soon as the young dog knows his game, you must bring him under complete subjection and command. If he is naturally tractable, and has profited from the instructions you have given him before his being taken into the field, it will be easy to accomplish it; but, if he is stubborn and unruly, it will be necessary to make use of the trash-cord. This is done by only fastening to the collar of the dog, a rope or cord, of about twenty, or twenty-five fathom in length, and then letting him range about with this dragging on the ground. By the help of this cord, you will be able to keep him in whenever you call to him, which you should never do but when you are within reach of it; and then, if he should continue to run forward, you must check him smartly with the cord, which will often bring him upon his haunches. When you have repeated this a few times, he will not fail to come in immediately on being called; you should then caress him, and give him a bit of bread, and continue to do so whenever he comes in on being called to. After this, in order to accustom him to cross and range before you, turn your back to him, and walk on the opposite side; when he loses sight of you, he will come to find you; he will be agitated and afraid of losing you, and will, in ranging, turn his head, from time to time, to observe whereabouts you are. Eight days practice of this manœuvre, will make him range on whatsoever side you please, by only giving him a sign with the hand.

When the dog is arrived at this point of instruction, be careful to keep him constantly tied up; never unchain him but when you give him his food, and not always then, but at those times only that he has done something to deserve it. The next step will be to throw down a piece of bread on the ground, at the same moment taking hold of the dog by the collar, calling out to him, take heed, softly. After having held him in this manner for some space of time, say to him, seize, lay hold. If he is impatient to lay hold of the piece of bread before the signal is given, correct him gently with a small whip. Repeat this lesson until he takes heed well, and no longer requires to be held fast to prevent him from laying hold of the bread. When he is well accustomed to this menage, turn the bread with a stick, holding it in the manner you do a fowling-piece, and having done so, cry, seize! Never suffer the dog to eat, either in the house or field, without having first made him take heed in this manner.

Then, in order to apply this lesson to the game, fry small pieces of bread in hog's-lard, with the dung of a partridge; take these in a linen bag into the fields, stubbles, ploughed grounds, and pastures, and there put the pieces in several different places, marking the spots with little cleft pickets of wood, which will be rendered more distinguishable by putting pieces of card in the nicks. This being done, cast off the dog, and conduct him to these places, always hunting in the wind. After he has caught the scent of the bread, if he approaches too near, and seems eager to fall upon it, cry to him in a menacing tone, take heed; and, if he does not stop immediately, correct him with the whip. He will soon comprehend what is required of him, and will stand. At the next lesson, take your gun charged only with powder, walk gently round the piece of bread once or twice, and *fire*, instead of crying, *seize*. The next time of practising this lesson, walk round the bread four or five times, but in a greater circle than before, and continue to do this until the dog is conquered of his impatience, and will stand without moving until the signal is given. When he keeps the point well, and stands steady in this lesson, you may take him to find the birds; if he runs in upon them, or barks when they spring up, you must correct him; and, if he continues to do so, you must return to the fried bread: but this is seldom necessary.

There are many dogs that will point the first day they are taken out; and there are others that will point and back the first time, by natural instinct. But, to make the dog staunch, you should endeavour to kill a few birds on the ground before him, and should not shoot flying until he is well trained and steady. This, however, can only be done when the dog is broke in during the shooting season. The spring is the best time for training dogs; because the birds, being paired, lie better, and, being sprung more seldom, and fewer in number, the dog is not so subject to be eager, and is kept under command with greater ease. But, as this season scarcely allows time to make the dog perfect and staunch, you must resume his lessons in the month of *September*, or the latter end of *August*, which will soon complete him. Another method used to break in a dog is, with a cord of the same length as the former, and the strong collar. This collar is made of a strong leather strap, and stuck with three rows of small nails, the points of which extend three or four lines of an inch beyond the surface of the inside; a strong piece of leather is then put over the heads of the nails, on the outside of the collar, in order to prevent their starting back, when the dog presses upon the points. A ring is fastened to each end of this collar, for, if it were buckled like a common one, it would perpetually wound the dog; through these rings, therefore, is passed one end of the cord, in such a manner, that, in pulling towards you, the rings bring the collar close; the nails then press upon his neck, and warn him of his fault.

As soon as the dog is instructed to take heed of the bread, in the way before explained, you must take him into the fields with the strong collar on his neck, and the trash-cord dragging on the ground; be careful not to let him range too wide, but keep him within such a distance that you can always lay hold of the cord at those times when it may be necessary to check him. When the first birds are sprung to the dog, if he runs after them, or barks, give him a few checks, calling out to him, take heed. If he stands at them, then caress him; but you should never hunt him with the cord until he points staunch.

When once a dog is taught to point at partridges, he will stand at every sort of winged game, and even at hares; yet, as before remarked, it is very difficult to prevent

prevent dogs from running after hares, whether they ſtart at a diſtance or after the dog has pointed them, eſpecially if he is at ſome diſtance from his maſter, who will, in that caſe, try in vain to make him come in; for, when a dog perceives his maſter a good way off, he will not ſo readily obey his voice as when he is near him. It is not eaſy to correct dogs of this fault (if it may be accounted ſuch) except in places where there are many hares, for there, by ſeeing them frequently, he gets tired of purſuing them. Beſides, to keep a dog in the habit of not running after hares, he muſt be hunted only in open grounds; for, if you once carry him into a wood, he will be certain to run after both hares and rabbits, and then, when you return to the open fields, he will do as he did in the wood.

There are few dogs that will not ſometimes break in upon the birds, particularly when hunting down the wind; you ſhould, therefore, when he does ſo, only ſpeak roughly to him, and not chaſtiſe him, unleſs, indeed, he runs after the birds; in that caſe, mark the place from which they got up, for the dog will ſoon return thither, and then you muſt chaſtiſe him with the whip, but with moderation, which is always neceſſary, and particularly ſo if the dog is timid.

There are dogs of this nature, which, if you beat them exceſſively, will lie down at your feet, and will hunt no more: others again leave you and run home. In the laſt caſe, one mode of correction is, to have a ſtake fixed in the middle of the yard, furniſhed with a chain and collar; when the dog arrives, a ſervant, previouſly inſtructed, ſhould faſten him to the ſtake, and give him a ſound beating, which ſhould be repeated at intervals for the ſpace of an hour. During this operation the maſter ſhould not appear, but remain without ſhewing himſelf, until ſome time after the laſt correction, in order that the anger of the dog may have time to ſubſide. Then he ſhould go up to him, careſs him much, unchain him, give him ſome food, and afterwards take him back to the field. However, this mode is not ſo infallible as many have aſſerted; for it often happens, that the dog, who has thus received the ſtrappadoes, the next time he arrives at the houſe, after having run away, ſlinks off, and lurks in ſome hole, without your knowing what is become of him, and does not make his appearance again for a long while. The beſt way is, to ſtudy the temper and diſpoſition of the dog, and to conduct yourſelf accordingly in the application of correction.

We have before ſaid, that when you cannot ſucceed in teaching a dog his firſt leſſons at an early age, by gentle treatment, it is neceſſary to wait till he is older, and then to make uſe of the ſtrong collar; here then is the beſt mode of uſing it: take a ſquare piece of wood, of about eight eight or nine inches in length, and one inch in thickneſs, cut notches on the edges like the teeth of a ſaw, and bore two holes at each end, in order to fix two ſmall pegs croſs-wiſe, ſo that, when this piece of wood is thrown on the ground, the pegs may ſupport and raiſe it above the ſurface a full inch, the purpoſe of which is, to enable the dog to mouth it the more eaſily. The ſtrong collar ſhould then be put about his neck, and, taking the ſtick, rub the notches backwards and forwards on his teeth, to make him open his mouth; but do it gently, to hurt him as little as poſſible: when he has taken it into his mouth, hold you left hand under his chaps, in order to prevent his putting it out, and with the right careſs and pat him, crying, take heed. If, when you take away your hand from under his mouth, the dog lets fall the ſtick, ſpeak harſhly to him, and check the collar to chaſtiſe him; then make him take the ſtick in the ſame manner as before. The dog, thus perceiving that he is puniſhed when he drops the ſtick, and careſſed when he retains it, will at length accuſtom himſelf to hold it, and will open his mouth when you preſent it to him. You muſt then proceed to make him take it himſelf, by preſenting it to him, crying, at that inſtant, lay hold; at the ſame time you ſhould careſs him much, and now and then give him little checks, to make him more alert, and come forward more expeditiouſly.

If, in practiſing this leſſon, the dog advances of his own accord, and takes the ſtick, careſs him again, and give him a little bit of food. When he begins to put forward his head an inch or ſo, he is then ſufficiently broken in to this manœuvre, and will ſoon take the ſtick from the ground, in doing which you muſt firſt ſay to him very loud, lay hold; and, afterwards, bring here. In order to habituate the dog in this exerciſe, when he has advanced ſo far as to bring the ſtick readily, you ſhould ſometimes ſubſtitute in the place of the piece of wood, the wing of a partridge ſewed upon a linen cuſhion, and at other times the ſkin of a hare ſtuffed with hay, in each end of which you ſhould put a ſtone, to accuſtom him to carry a hare by the middle of the body. At length, when he brings every thing readily to you, take him into the field, and make him bring the firſt bird that you kill to you; if he requires much intreaty, put the ſtrong collar on him, which, in caſe of need, you ſhould carry along with you.

To teach a dog to take the water, chooſe a pool, the edges of which gently decline; throw a piece of wood into it at firſt, but to ſo ſmall a diſtance from the ſide that he may be able to reach it by only wading to his mid-leg. Afterwards increaſe the diſtance by degrees, until he ſwims to take it; be careful at each time that he brings the piece of wood to you, to give him ſomething to eat. If he will not venture to ſwim, you muſt take another courſe; take him to the pool before he has breakfaſted, and throw pieces of bread into the water, gradually increaſing the diſtance as before, and, by this method, you will ſoon teach him to earn his breakfaſt by ſwimming.

To complete this training, if you have a piece of water of ſufficient depth, put a wild-duck into it with the wings cut, then animate and encourage the dog until he goes into the water to follow the duck, which will ſwim before him, and ſometimes dive when followed cloſe, in order to diſengage herſelf from the purſuit. When this menage has laſted ſome time, finiſh it by ſhooting the duck, and the dog will not fail to bring it to you very readily. Theſe leſſons, however, ſhould be given in warm weather, for you will ſcarcely prevail on any pointer to go into the water in winter; even the

attempt alone might give him a dread of it; but, at all events, if he refuses to take the water, you should never throw him in. The sportsman has only to conduct himself with patience and moderation, and observe the rules here laid down, and he will accomplish his work. To make a dog back and stand in company, you should hunt him with an old staunch dog; and then, with a small application of the principles of training, you will easily effect this necessary qualification.

Young dogs, for the most part, love to run after poultry, and some after sheep; these are faults which it is absolutely necessary to correct betimes. As to the poultry, if you cannot make your dog leave off the custom of chacing them, by virtue of the whip the following method will do it: take a small stick, cleft at one end sufficiently wide to admit the tail of the dog, which being introduced, tie the cleft end with a piece of twine tight enough to make him feel pain: at the other end of the stick tie a fowl by the wing; then, after a little time, let the dog loose, at the same instant give him a few heavy strokes with a whip. The dog will then run as fast as he can, by reason of the pain in his tail, which he imagines is caused by the fowl. By dint of dragging the fowl, he will kill it, and, spent with running, he will stop, and afterwards hide himself in some hole; then take off the stick, and beat him about the mouth and head with the dead fowl.

If the dog runs after sheep, and you cannot break him of the custom, couple him with a ram, and, in letting them loose, whip the dog as long as you can follow him. His cries will first alarm the ram, who will run with all speed, and drag the dog along with him; but he will soon take courage, and will end with butting the dog most severely. When you think the dog has received sufficient correction, uncouple him, and he will never run at sheep again. *See also the article* POINTERS.

Of the Manufacture and Perfections of a Fowling-Piece.

To form a gun-barrel in the manner generally practised for those denominated common, the workmen begin by heating and hammering out a bar of iron into the form of a flat ruler, thinner at the end intended for the muzzle, and thicker at that for the breech; the length, breadth, and thickness, of the whole plate, being regulated by the intended length, diameter, and weight of the barrel. This oblong plate of metal is then, by repeated heating and hammering, turned round a cylindrical rod of tempered iron, called a mandril, whose diameter is considerably less than the intended bore of the barrel. The edges of the plate are made to overlap each other about half an inch, and are welded together by heating the tube in lengths of two or three inches at a time, and hammering it, with very brisk but moderate strokes, upon an anvil which has a number of semicircular furrows in it, adapted to the various sizes of barrels. The heat required for welding is, the bright white heat, which immediately precedes fusion, and at which the particles of the metal unite and blend so intimately with each other, that, when properly managed, not a trace is left of their former separation: this degree of heat is generally known by a number of brilliant sparks flying off from the iron whilst in the fire; although it requires much practice and experience to ascertain the degree of heat required for welding iron, which possesses various qualities, and is seldom alike. Every time the barrel is withdrawn from the forge, the workman strikes the end of it once or twice gently against the anvil in a horizontal direction: this operation, which the English artists term *jumping*, the French, *estoquer*, serves to consolidate the particles of the metal more perfectly, and to obliterate any appearance of a seam in the barrel. The mandril is then introduced into the bore or cavity; and the barrel, being placed in one of the furrows or moulds of the anvil, is hammered very briskly by two persons besides the forger, who all the time keeps turning the barrel round in the mould, so that every point of the heated portion may come equally under the action of the hammers.—These heatings and hammerings are repeated until the whole of the barrel has undergone the same operation, and all its parts are rendered as perfectly continuous as if it had been bored out of a solid piece.

The imperfections to which a gun-barrel is liable in forging, are of three kinds, viz. the chink, the crack, and the flaw. The chink is a solution of continuity, running lengthwise of the barrel. The crack is a solution of continuity, more irregular in its form than the chink, and running in a transverse direction, or across the barrel. The flaw differs from both: it is a small plate or scale, which adheres to the barrel by a narrow base, from which it spreads out as the head of a nail does from its shank; and, when separated, leaves a pit or hollow in the metal.

With regard to the soundness of the barrel, the chink and flaw are of much greater importance than the crack, as the effort of the powder is exerted upon the circumference, and not upon the length, of the barrel. In a sword or bow, the very reverse of this takes place; for if a crack, though but of a slight depth, occurs in either, it will break at that place when bent but a very little; because the effort is made upon the fibres disposed longitudinally; whereas, if the fault be a chink, or even a slight flaw, the sword or bow will not give way. The flaw is much more frequent than the chink; the latter scarcely ever occurring but in barrels forged as above, in which the fibres of the metal run longitudinally; and then only when the iron is of an inferior quality. When external and superficial, they are all defects in point of neatness only; but, when situated within the barrel, they are of a material disadvantage, by affording a lodgment to moisture and foulness that corrode the iron, and thus continually enlarge the excavation until the barrel bursts, or becomes dangerous to use.

The barrel, when forged, is either finished in the common manner, or made to undergo the operation of twisting, which is a process employed on those barrels that are intended to be of a superior quality and price to others. This operation consists in heating the barrel, in portions of a few inches at a time, to a high degree

degree of red heat; when one end of it is ſcrewed into a vice, and into the other is introduced a ſquare piece of iron with a handle like an augur; and, by means of theſe, the fibres of the heated portion are twiſted in a ſpiral direction, that is found to reſiſt the effort of the powder much better than a longitudinal one.

To perſons unacquainted with the loſs which iron ſuffers in forging, it will be a matter of ſurpriſe that 12 pounds of iron are required to produce a barrel, which, when finiſhed, ſhall not weigh more than two pounds, or two pounds and a half. But, although a conſiderable waſte is unavoidable, yet the quantity of it depends very much upon the quality of the iron, upon that of the coal, and upon the knowledge and dexterity of the workman. In *Spain* they cannot work but with charcoal of wood; in *France* they employ pit-coal charred, or coke; in *England* they uſe pit-coal without being charred, but are very careful to have it of the pureſt kind, ſome ſorts containing a portion of ſulphur and arſenic which render the metal altogether unmalleable, or, in the language of the workmen, poiſon the iron.

A circumſtance of conſiderable importance to the excellence of a barrel is, the forging it as near as can be to the weight it is intended to be of when finiſhed, ſo that very little be taken away in the boring and filing; for, as the outer ſurface, by having undergone the action of the hammer more immediately than any other part, is rendered the moſt compact and pure, we ſhould be careful to remove as little of it as poſſible: the ſame thing holds, though in a leſs degree, with regard to that portion of the inſide of the barrel which is to be cut out by the boring inſtrument.

Piſtol barrels are forged in one piece, and are cut aſunder at the muzzles after they have been bored; by which there is not only a ſaving of iron and of labour, but a certainty of the caliber being perfectly the ſame in both.

The next operation conſiſts in giving to the barrel its proper caliber: this is termed boring. The boring-bit is a rod of iron, ſomewhat longer than the barrel; one end being made to fit the ſocket of the crank, and the other being furniſhed with a cylindrical plug of tempered ſteel, about an inch and a half in length, and having its ſurface cut in the manner of a perpetual ſcrew, the threads being flat, about a quarter of an inch in breadth, and running with very little obliquity. This form gives the bit a very ſtrong hold of the metal; and the threads, being ſharp at the edges, ſcoop out and remove every roughneſs and inequality from the inſide of the barrel, and render the cavity ſmooth and equal throughout. A number of bits, each a little larger than the preceding one, are afterwards ſucceſſively paſſed through the barrel in the ſame way, until it has acquired the intended caliber. The equality of the bore is ſo eſſential to the excellence of a piece, that the greateſt accuracy in every other particular will not compenſate for the want of it. Any perſon who wiſhes to know the merit of his piece in this reſpect, may do it with tolerable accuracy, by means of a plug of lead, caſt on a rod of iron or wood; or even by a muſket ball, filed ſo as to fit the bore exactly, and puſhed through the barrel by the ram-rod, care being taken not to uſe an iron ram-rod, or much force, leſt the ball be flattened, and an artificial difficulty created.

The barrel may now be conſidered as quite finiſhed with regard to its inſide: at leaſt it has nothing more to be done to it by the maker. The gunſmiths, however, generally make it undergo a further operation of poliſhing; after which it is in a condition to receive its proper form and proportions externally, by means of the file. To do this with accuracy, four flat ſides or faces are firſt formed; then eight, then ſixteen, and ſo on, until it is made quite round; except the reinforced part, which in moſt of the modern work is left with eight ſides. This octagonal form of the reinforced part is certainly more elegant than the round one formerly in uſe: but it adds to the weight of the barrel without increaſing its ſtrength; for the effort of the powder will always be ſuſtained by the thinneſt part of the circumference, without any regard to thoſe places that are thicker than the reſt.

It is abſolutely neceſſary to the ſoundneſs of a barrel, that it ſhould be of an equal thickneſs on every ſide; or, in the language of the workmen, a barrel ought to be perfectly upright. In order to arrive, as nearly as poſſible, to this perfect equality, the gunſmiths employ an inſtrument which they call a compaſs. It conſiſts of an iron rod bent ſo as to form two parallel branches about an inch diſtant from each other. One of theſe branches is introduced into the barrel, and kept cloſely applied to the ſide by means of one or more ſprings with which it is furniſhed: the other branch deſcends parallel to this, on the outſide, and has ſeveral ſcrews paſſing through it with their points directed to the barrel. By ſcrewing theſe until their points touch the ſurface of the barrel, and then turning the inſtrument round within the bore, it is ſeen where the metal is too thick, and how much it muſt be reduced in order to render every part of the barrel perfectly equal throughout its circumference. To form the ſcrew in the breech-end of the barrel, the firſt tool employed is a plug of tempered ſteel, ſomewhat conical, and having upon its ſurface the threads of a male ſcrew. This tool, which is termed a ſcrew-tap, being introduced into the barrel, is turned from left to right, and back again, until it has marked out the three or four firſt threads of the ſcrew: another leſs conical tap is then introduced; and when this has carried on the impreſſion of the ſcrew as far as it is intended to go, a third tap is employed, which is nearly cylindrical, and ſcarcely differs from the plug of the breech which is intended to fill the ſcrew thus formed in the barrel. The breech-plug has its ſcrew formed by means of a ſcrew-plate made of tempered ſteel, and has ſeveral female ſcrews correſponding with the taps employed to form that in the barrel. A plug of ſeven or eight threads is ſufficiently long; and the threads ought to be neat and ſharp, ſo as to fill completely the turns made in the barrel by the tap. The breech-plug is afterwards caſe-hardened, or has its ſurface converted into ſteel, by being covered over with ſhavings of horn, or parings of horſe-hoof, and kept red-hot in the fire for ſome time, after which it is plunged into water.

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The last operation is that of colouring the barrel, previous to which it is polished with fine emery and oil, until it presents to the eye, throughout its whole length, and in whatever direction we observe it, a perfectly smooth, equal, and splendid surface. Formerly barrels were coloured by exposing them to a degree of heat which produced an elegant blue tinge; but, as this effect arises from a degree of calcination taking place upon the surface of the metal, the inside of the barrel always suffered by undergoing the same change. This, therefore, added to the painful sensation excited in the eye by looking along a barrel so coloured, has caused the produce of blueing to be disused for some time past. Instead of it, barrels are now browned, as it is termed. To do this, the barrel is rubbed over with aqua fortis, or spirit of salt, diluted with water, and laid by until a complete coat of rust is formed upon it; a little oil is then applied; and the surface, being rubbed dry, is polished by means of a hard brush and bees-wax.

When the barrels intended for a double-barrelled piece are dressed to their proper thickness, which is generally less than for single barrels, each of them is filed flat on the side where it is to join the other, so that they may fit closely together. Two corresponding notches are then made at the muzzle and breech of each barrel; and into these are fitted two small pieces of iron, to hold them more strongly together. The barrels being united by tinning the parts where they touch, the ribs are fitted in, and made fast by the same means. These ribs are the triangular pieces of iron which are placed between the barrels, running on the upper and under sides their whole length, and serving to hold them more firmly together. The under rib is a late improvement, and is found more effectually to prevent the barrels from warping. When the barrels are thus joined, they are polished and coloured in the manner already described.

The twisted barrels are deservedly celebrated for their superior elegance and strength, as well as for the accuracy with which they throw either ball or shot. The iron employed in them is formed of stubs, which are old horse-shoe nails, procured from country farriers, and from poor people who gain a subsistence by picking them up on the great roads leading to the metropolis. These are originally formed from the softest and toughest iron that can be had; and this is still farther purified by the numerous heatings and hammerings it has undergone in being reduced from a bar into the size and form of nails. They cost about ten shillings the hundred weight, and twenty-eight pounds are required to make a single barrel of the ordinary size. A hoop of iron, about an inch broad, and six or seven inches diameter, is placed perpendicularly; and the stubs, previously freed from dirt by washing, are neatly piled in it, with their heads outermost on each side, until the hoop is quite filled and wedged tight with them; the whole resembling a rough circular cake of iron. This is put into the fire until it has acquired a white heat; when it is hammered, either by the strength of the arm, or by the force of machinery, until it coalesces, and becomes one solid mass of iron: the hoop is then removed, and the heatings and hammerings repeated, until the iron, by being thus wrought and kneaded, is freed from every impurity, and rendered very tough and close in the grain: the workman then proceeds to draw it out into pieces of about twenty-four inches in length, half an inch or more in breadth, and half an inch in thickness.

These pieces, however, are not all of the same thickness; some being more and others less than what we have mentioned, according to the proposed thickness of the barrel, and that part of it which the piece is intended to form. One of these pieces, being heated red-hot for five or six inches, is turned like a corkscrew, without any other tools than the anvil and hammer. The remaining portions are successively treated in the same manner, until the whole piece is turned into a spiral, forming a tube whose diameter corresponds with that of the intended barrel. Four of these are generally sufficient to form a barrel of the ordinary length, which is from thirty-two to thirty-eight inches; and the two which form the breech or reinforced part, are considerably thicker than those which constitute the fore-part, or muzzle of the barrel. The workman first welds one of these tubes to a part of an old barrel, which serves as a handle. He then proceeds to unite the turns of the spiral to each other, by heating the tube two or three inches at a time, to a bright white heat, and striking the end of it several times against the anvil in a horizontal direction, and with considerable force: this is termed jumping the barrel; and the heats given for the purpose are called jumping heats. A mandril is then introduced into the cavity; and the heated portion is hammered lightly, to flatten the ridges or burs raised by the jumping at the place where the spirals are joined. As soon as one piece is jumped its whole length, another is welded to it, and treated in the same manner, until the four pieces are united; when the part of the old barrel, being no longer necessary, is cut off. The welding the turns of the spiral is performed exactly in the same manner as before described, and is repeated three times. The barrel is afterwards finished in the same way as a common one. Stub-iron is also wrought into plain barrels; which, as they require a great deal less labour are only half the price of the twisted ones.

The *canons à rubans*, or *ribbon-barrels*, of the French, very much resemble the English twisted barrels. The process pursued in their formation is considerably more operose than that just described, but seems to be far from possessing any advantage over it. The acknowledged superiority of twisted and ribbon barrels over plain ones, has induced some persons to counterfeit them, by colouring plain barrels so as to shew a spiral line running from one end to the other. This is done by winding a thread or string in a spiral direction round a plain barrel, and then wetting the string with the diluted aqua fortis, or spirit of salt, so that a coat of rust may be formed where the string touches: when the acid is applied the second time over the whole barrel, the part over which the string was applied, by being more rusted than the rest, shews a dark line winding round the barrel, and renders it, when finished, scarcely distinguishable from a twisted

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or ribbon-barrel. Other barrels are, by the same means, clouded in an irregular manner, so as to resemble those formed of stub-iron. To prove whether or not a barrel is really what it appears to be, we need only fix upon any part on the under side that is covered by the stock, and having cleared it, if necessary, with a fine file, apply a feather dipped in aqua fortis, which in a little time will render the fibres of the metal distinctly visible, in whatever direction they run.

The *Spanish* barrels have always been held in great esteem, as well on account of the quality of the iron, which is generally considered as the best in Europe, as because they possess the reputation of being forged and bored more perfectly than any others. It should be observed, however, that of the *Spanish* barrels, those only that are made in the capital are accounted truly valuable; in consequence of which a great many have been made at other places, especially at *Catalonia* in *Biscay*, with the names and marks of the *Madrid* gunsmiths: they are also counterfeited at *Liege*, *Prague*, *Munich*, &c. and a person must be a very good judge not to be deceived by these spurious barrels.

Proofs of Barrels.

These differ in different countries. The *Spanish* proof is a very severe one; but, as it is made before the barrel is filed, it is not satisfactory. At the royal manufactories of *St. Etienne* and *Charleville*, in *France*, there were inspectors appointed to see that no barrels were sent out of these places, whether for the king's use or for public sale, without being proved. The first proof was made with a ball exactly fitting the caliber, and an ounce of powder. The second was made with the same sized ball and half an ounce of powder. The reason given for the second proof is, that the first may have strained the barrel so much, though the injury be not visible, that it will not bear a second trial with a smaller charge; and it is said there really are some of these barrels which stand the first proof, and yet give way in the second.

The usual proof of the *Paris* barrels is a double charge of powder and shot; that is, two or two and a half drams of powder, and two or two and a half ounces of shot. The *English* Tower proof, and that of the *Whitechapel* Company, incorporated by charter for proving of arms, are made with a ball of the caliber, and a charge of powder equal in weight to this ball: the proof is the same for every size and species of barrel, and not repeated.

Some gunsmiths pique themselves upon making their barrels undergo a second proof; but it is proper to observe, that if a barrel bears any assigned proof, it will sustain the same, immediately after, with greater safety than it did at first, as the metal, from being warmed by the first fire, expands more readily to the force of the second explosion.

Mons. de Marolles, speaking of the proofs of barrels, says, "A stronger proof than ordinary might be made by ramming down at top of the powder six or seven inches of dry clay, in place of a double charge of lead. This is sometimes employed in proving pieces of ordnance, where, instead of the bullet, two feet of clay is placed over the powder, by which the whole force of the explosion is exerted upon the piece." We entirely agree with the ingenious author of La Chasse au Fusil, in the opinion that the proof he mentions would be much stronger than that which is usually employed; so much stronger, indeed, that we do not believe any barrel could withstand it, unless the clay were put down in the loosest manner possible. The hardest rocks are burst asunder by means of dry clay strongly rammed over the powder that is placed at the bottom of a cylindrical cavity made in them; and we certainly cannot expect that a force sufficient to rend in pieces immense blocks of granite, can be resisted by the comparative trifling strength and thickness of a gun-barrel.

Causes of Bursting.

It may be safely asserted, that a good barrel very seldom bursts, unless it be charged too highly, or in an improper manner. Whenever, for example, from the ball not being rammed home, a space is left between it and the powder, there is a great risk of the barrel bursting on being discharged. We say a great risk, because, even under these circumstances, it frequently happens that the barrel does not burst. If the ball stops near to the powder, a very small windage is sufficient to prevent this accident; and it is very rare that the ball touches the barrel in every part of its circumference, unless it has been driven in by force with an iron ram-rod; in which case it moulds itself to the cavity, and blocks it up completely. Should this happen, the barrel, however strong it is, will burst, even when the space between the ball and the powder is but very inconsiderable; and the greater the space that intervenes, the more certainly will this event take place. Mr. Robins, when speaking of this matter, says, "A moderate charge of powder, when it has expanded itself through the vacant space and reaches the ball, will, by the velocity each part has acquired, accumulate itself behind the ball, and will thereby be condensed prodigiously; whence, if the barrel be not of an extraordinary strength in that part, it must infallibly burst. The truth of this I have experienced in a very good Tower musquet, forged of very tough iron; for, charging it with twelve penny weights of powder, and placing the ball (loosely) sixteen inches from the breech; on the firing of it, the part of the barrel just behind the bullet was swelled out to double its diameter, like a blown bladder, and two large pieces of two inches long were blown out of it."

The same accident will often take place from the mouth of the piece being filled with earth or snow, as sometimes happens when we are leaping a ditch, with the muzzle of the piece pointed forwards; and if in such cases the barrel does not burst, it is because these foreign bodies stop it up but very loosely. For the same reason, a barrel will certainly burst, if fired when the muzzle is thrust into water but a very little depth below the surface; the resistance given to the passage of the inflamed powder through the mouth of the piece being

being, in this case, much greater than that afforded by the sides of the barrel. Except in the circumstances mentioned, or in case of an overcharge, it is very rare that a barrel bursts. Whenever it happens independent of these, it is from a defect in the work, and that either the barrel has been imperfectly welded, or that a deep flaw has taken place in some part of it; or, lastly, that through want of care in the boring or filing, it is left of unequal thickness in its sides. The last defect is the most common, especially in low-priced barrels; and, as pieces more frequently burst from it than from the other defects, it ought to be particularly guarded against. The elastic fluid, which is set loose by the inflammation of the powder, and which endeavours to expand itself equally in every direction, being repelled by the stronger parts, acts with additional force against the weaker ones, and frequently bursts its way through them; which would not have been the case, had the sides been of the same thickness and strength, and not afforded an equal repercussion. The weakness of any part of the barrel, occasioned by the inequality of the caliber, will still more certainly be the cause of bursting than that produced by the filing; because the inflamed fluid, being suddenly expanded at the wider part, must suffer a compression before it can pass onward, and the whole force is then exerted against the weak place; for gunpowder acts in the radii of a circle, and exerts the same force on every part of the circumference of the circle.

The conclusion to be drawn from all this is, that a thin and light barrel, which is perfectly upright, that is, of equal thickness in every part of its circumference, is much less liable to burst than one which is considerably thicker and heavier, but which, from being badly filed or bored, is left of unequal strength in its sides.

In all that we have hitherto said upon the causes of bursting, the bad quality of the iron has not been taken into account; and we do not know any means of guarding against these defects, whether arising from the badness of metal, or the insufficiency of workmanship, except by purchasing from a gunsmith of established reputation, and giving a good price for the piece. But by this we do not mean to sanction the practice of many of the gunsmiths in the fashion of the day; we are confident in our opinion, that most of their barrels are made too thin; and it may fairly be doubted, whether they have at all improved the quality of the metal. In some experiments made with a barrel of the celebrated Lazaro Cominazzo before mentioned, and which was five feet ten inches in length, and extremely thin, particularly towards the muzzle, it was observed, that the barrel vibrated so much after the explosion of this charge, as to produce a whizzing or ringing sound that might be heard to a considerable distance from the barrel. And yet this piece, notwithstanding its extreme thinness, was fired with very high charges. The iron appeared to be of an extraordinary fine quality; which goes to prove that the cohesion of the particles of the metal is the force which resists that of the powder; and hence great advantage might be drawn to the manufacture of barrels, from an accurate knowledge of the force of powder, and the velocity of the ball. For, these points being once determined, it might be known how strong the barrel should be; by which all unnecessary waste of metal might be spared on the one hand, and all danger avoided on the other. For a force equal to that which impels the ball is exerted on the inside of the piece; and if the barrel has not sufficient strength to resist this force, it must of necessity burst.

Of the Recoil.

The most frequent cause of excess in the recoil is, the bore of the piece being wider at one place than another; for although this inequality be so small as to be imperceptible to the eye, the repulse which the expanding flame meets with when passing from the wider to the narrower part, renders the recoil much greater than it would have been had the bore been perfectly cylindrical. It is an invariable law in mechanics, that action and reaction are equal; it follows, therefore, that, the weight of the piece being the same, the recoil will be in proportion to the weight of the piece; or, the lighter the piece, the greater the recoil.

In plainer language, the impelling force of the gunpowder is the first and most simple cause of the firearms recoiling; for this force acts equally on the breech of the piece and on the ball: so that, if the piece and ball were of equal weight, and other circumstances the same, the piece would recoil with the same velocity as that with which the ball issues out of the piece.

For the same reason, whatever retards the exit of the charge operates like an increase of lead, and by confining the force of the explosion the more to the barrel, produces a greater recoil; hence partly it is, that in proportion as the barrel becomes foul within by repeated firing, the recoil increases. A piece will recoil, if, from the breech-plug being made too short, there remain some turns of the screw not filled up, these hollows, wherein a part of the powder is lodged, forming an obstacle that confines and retards the explosion. A barrel mounted on a stock that is very straight, will recoil more than when mounted on a stock that is considerably bent, as the curvature seems to break and deaden the force of the recoil; and sometimes also a fowling-piece will recoil from the shooter applying it improperly to his shoulder; for if the but is not applied closely to the shoulder, or is applied so as to be supported only at a single point, the recoil will be much more sensibly felt than when the hollow of the but embraces the shoulder, and is firmly supported by the weight of the body. Guns are observed to recoil more after being fired a number of times than they did at the beginning. The matter which is left upon the inside of the barrel after the explosion, and which increases on every discharge, attracts moisture very quickly; especially if the saltpetre employed in the powder was not well purified from the admixtures of common salt, which it contains in its rough state. This moisture becomes considerable after a few discharges, and, being formed into vapour by the heat during the explosion, adds its expansive effort to that of the inflamed powder, and

and greatly increases the agitation and recoil. Owing to this cause, probably, rather than to that before-mentioned, arises the recoil from some turns of the breech-screw not being filled up by the breech-plug, and thereby affording a lodgment to moisture.

Among the variety of causes to which the excessive recoil of pieces has been attributed, there is one which yet remains to be considered; this is, the touch-hole's being placed at some distance from the breech-plug, so that the powder, instead of being fired at its base, is fired near the centre of its charge; whence, it is said, the recoil is increased, and the force of the discharge weakened, by the effort of the powder being exerted more upon the breech than upon the ball or shot. With this idea in view, some gunsmiths form a channel or groove in the breech-plug, as deep as the second or third turn of the screw; the touch-hole opens into this channel, and the powder is therefore fired at its very lowest part; and this, they assert, increases the inflammation and the force of the powder. That the distance of the touch-hole from the breech, however, has very little if any share in the increase of the recoil, we shall prove in the most satisfactory manner, from experiments made purposely to determine this matter. As to the idea that the force of the discharge is diminished by the increase of the recoil, it is too absurd to require discussion: the force exerted by the powder upon the breech is always equal to that which it exerts upon the ball or shot; so that, if there be nothing in the barrel that retards the exit of the ball, an increase in the recoil will be always attended with an increase in the force of the discharge.

The following experiments were made by Monf. Le Clerc, who was gunsmith to the late king of *France*, and well informed upon every subject that relates to his profession; they were communicated by him to Monf. De Marolles.

These experiments were made with a barrel which was thirty *French* inches in length, (nearly thirty-two *English* measure,) and weighed, together with the loaded plank upon which it was fixed, twenty-eight pounds. The barrel had four touch-holes which could be stopped with screws. The charge consisted of one drachm and twelve grains of powder from a royal manufactory, and of one ounce eighteen grains of shot called small 4. This was fired at a sheet of paper measuring twenty inches by sixteen, *French* measure, placed at the distance of twenty-eight toises, or nearly forty-five ordinary paces. The only difference was, that in the first set of experiments the wadding consisted of card-paper, and in the second of hat, both cut to fit the caliber.

Had these trials been made with no other view than to determine the degree of recoil produced by the different situation of the touch-hole, there would have been no use in marking the size of the shot, the distance and dimensions of the mark, and the number of grains thrown into it at each discharge. It was, however, intended to try, at the same time, how far the equality of the discharges could be depended upon, with regard to the number of grains that struck a given space; and we shall have occasion hereafter to make remarks upon the result of the trials in this respect.

N. B. The *French* foot is three quarters of an inch longer than the *English* foot, and the *French* inch is divided into twelve lines.

We have thought it better to inform the reader of this, and leave the table as it is, than make any fractions in the numbers by reducing it to *English* measure.

First Set.—Wadding of Card-paper.

	Discharge.	Recoil. Foot.	Inch.	Lines.	Mean	No of grains thrown into the mark.	Mean.	Mean of all, 28.
Touch hole close to the breech-plug.	1	1	0	3	0 11 6⅔	36	27	
	2	0	10	3		14		
	3	1	0	3		31		
Touch hole two lines from the breech-plug.	1	1	3	9	1 3 0	45	34	
	2	1	2	0		33		
	3	1	3	3		26		
Touch-hole six lines distant.	1	1	0	10	1 0 6	38	25	
	2	0	11	11		20		
	3	1	0	9		18		
Touch-hole twelve lines distant.	1	1	1	7	1 1 0⅔	27	26	
	2	1	0	3		17		
	3	1	1	4		35		

Extremes 0. 10. 3. & 1. 3. 3.—Mean recoil 1. 1. 0.
Extremes 14 & 45.

Second Set.—Wadding of Hat.

	Discharge.	Recoil. Foot.	Inch.	Lines.	Mean	No of grains thrown into the mark.	Mean.	Mean, 45.
Touch-hole close to the breech-plug.	1	1	1	1	1 2 4½	40	51	
	2	1	4	0		78		
	3	1	2	0		37		
Touch-hole two lines distant.	1	1	0	7	1 2 0½	44	41	
	2	1	2	3		40		
	3	1	3	3		41		
Touch-hole six lines distant.	1	1	3	3	1 3 1	32	45	
	2	1	2	9		50		
	3	1	3	2		53		
Touch-hole twelve lines distant.	1	1	4	5	1 3 1⅔	60	44	
	2	1	2	7		21		
	3	1	2	5		51		

Extremes 1. 0. 7. & 1. 4. 5.—Mean recoil 1. 2. 8½.
Extremes 21 & 78.

From these experiments it appears, that, with regard to the recoil, the distance of the touch-hole from the breech is of little importance. The only circumstance, therefore, to be attended to in its situation, is, that it be not placed quite close to the breech-plug; for, although that part of the barrel where the powder is lodged, dirties much less than a few inches farther forward, yet the touch hole, when close to the breech-plug, is found to be more frequently stopped up than when situated about a quarter of an inch from it.

Of the Range of Barrels.

The lightness of fowling-pieces of a moderate length, and the ease with which they are managed, are advan-

tages so obvious, and at the same time so considerable, as to give them a general preference at this time; but, as the circumstances upon which only this preference ought to be rested are little known, it is not sufficient that their use is general, and daily increasing, unless it be determined what are the comparative excellencies and defects of long and short barrels, and it be thence shewn whether sportsmen sacrifice one advantage to gain another.

The generally-received opinion upon this subject is, that to obtain an increase in the range, the barrel must not only be made longer than usual, but that the length and the diameter of the bore ought to bear a certain proportion to each other, and the charge of powder be suited to this proportion; because, as it is said, when the barrel is too short, the ball or shot quits it before it has received the whole impulse of the powder; and, on the other hand, when the barrel is too long, that the powder is not only all inflamed, but even partly consumed, before the ball or shot arrives at the mouth of the piece.

The elastic fluid produced by the firing of gunpowder is found, by experiment, to occupy, when cooled to the temperature of the atmosphere, a space two hundred and forty-four times greater than that taken up by the powder from which it was obtained. But from the heat generated during the explosion, this elastic fluid is rarefied to upwards of four times its former bulk. The expansive force of this fluid, therefore, is, at the moment of inflammation, one thousand times greater than that of common air, or, which is the same, than the pressure of the atmosphere; or, supposing the powder to have occupied the space of one cubic inch, its expansive force, when fired, is equal to that which would be exerted by one thousand cubic inches of common air compressed into the space of one inch. As the velocity with which the flame of gunpowder expands when uncompressed, is much greater than that with which the ball, or shot, moves forward, the flame must continue to press upon the ball, and add to its velocity, until it quits the mouth of the piece. This pressure, however, becomes less and less, as the ball proceeds, and ceases intirely when it leaves the muzzle, in consequence of the flame being then allowed to expand itself laterally. Thus, for example, if the charge of powder takes up one inch of the barrel, and the whole length of the barrel be thirty inches, then, when the ball arrives at the muzzle of the piece, the inflamed powder (whose expansive effort is in proportion to the smallness of the space it occupies) extends through thirty times the space it did when the ball began to move, and consequently presses forward with but one-thirtieth part the force it possessed at first. Moreover, although the velocity of the bullet is continually increased by this pressure of inflamed powder, its acceleration becomes less and less as it proceeds through the barrel; for, besides that the quantity of the pressure diminishes as the flames expands, the bullet, continuing to move faster and faster, must receive continually less and less addition of impulse from the flame pressing behind it. Hence, if two pieces of the same bore, but of different lengths, are charged with the same quantity of powder, the longer piece will, strictly speaking, communicate the greater velocity and force to its ball, or shot. But as the inflammation of the powder has been shewn to be nearly instantaneous, and as the increase of acceleration, which the ball or shot receives after the first impulse of the powder upon it, is not very considerable; it follows that the force with which two barrels of the same bore, and with the same charge, throw their ball or shot, will be nearly the same, unless their lengths be extremely disproportionate.

To prove this, we shall quote what is said by that able mathematician and engineer, the late Mr. Benjamin Robins, to whose work we are indebted for much valuable information. "If a musquet barrel, of the common length and bore, be fired with a leaden bullet and half its weight of powder, and if the same barrel be afterwards shortened one-half, and fired with the same charge, the velocity of the bullet in this shortened barrel will be about one-sixth less than what it was when the barrel was entire; and if, instead of shortening the barrel, it be increased to twice its usual length (when it will be near eight feet long) the velocity of the bullet will not hereby be augmented more than one-eighth part. And the greater the length of the barrel is in proportion to the diameter of the bullet, and the smaller the quantity of powder, the more inconsiderable will these alterations of velocity be."

When the allowances which Mr. Robins here takes notice of are made in the proportion required for fowling-pieces, the result will be found to correspond exactly with the experiments which we have repeatedly made, with every possible attention to accuracy. We have, at different times, compared barrels of all the intermediate lengths between twenty-eight and forty inches, and of nearly the same caliber; and these trials were made both by firing the pieces from the shoulder, and from a firm block, at an equal distance, and with equal weights of the same powder and of the same shot.

To avoid every possibility of error, the quires of paper at which we fired, were fixed against planks, instead of being placed against a wall. From these trials, frequently repeated, we found that the shot pierced an equal number of sheets, whether it was fired from a barrel of 28, 30, 32, 34, 36, 38, or 40 inches in length. Nay more, we have compared two barrels of the same caliber, but one of them thirty-three and the other sixty-six inches long, by repeatedly firing them, in the same manner as the others, at different distances from forty-five to one hundred paces, and the results have always been the same, *i. e.* the barrel of thirty-three inches drove its shot through as many sheets of paper as that of sixty-six did. The conclusion from all this is, that the difference of ten inches in the length of the barrel, which seems to be more than is ever insisted upon among sportsmen, produces no sensible difference in the range of the piece; and therefore, that every one may please himself in the length of his barrel, without either detriment or advantage to the range.

The circumstance of a duck-gun killing at a greater distance

distance than a fowling-piece, is not owing to its length, but to its greater weight and thickness, allowing the charge of powder to be doubled, trebled, or even quadrupled; which cannot be done in a fowling-piece, though strongly reinforced. For a barrel of five or six feet, such as that of a common duck-gun, weighing five or six pounds, and the whole piece twelve or thirteen pounds, may be fired with a very large charge, without recoiling so much as to hurt the shooter, its weight being sufficient to resist the violent impulse occasioned by the increase of the powder. But in a fowling-piece of three feet barrel, sufficiently strong to withstand such a charge, and whose weight all together does not exceed five or six pounds, the recoil would be insupportable. Besides, they not only double or treble the powder in a thick gun, but they put in a much greater quantity of shot than is ever employed in a fowling-piece. Duck-guns are generally bent a little upwards near the muzzle, which, the gunsmiths say, makes them throw their shot farther than if they were perfectly straight. To obtain, therefore, from a piece of the ordinary length, the same effects as from a duck-gun, nothing more, perhaps, is necessary than to have the barrel sufficiently strong to admit of the charge being doubled or trebled as required, and the whole piece heavy enough to render the recoil supportable. We may here observe, however, that an increase of the powder above the charge generally used, does not produce a proportional increase of range in the ball or shot: thus a double charge of powder will not throw the ball or shot twice the distance, nor a treble charge to three times the distance the single charge does. This arises from the great resistance given by the air to the motion of the ball or shot, and which is proved to be fourfold if the velocity be doubled, and ninefold when it is trebled by an increase of powder; for the resistance of the air is not proportional to the velocity itself, but only to the square of the velocity. Thus Bernoulli, a professor in *Basil*, discovered from experiment that a ball, which, being fired, ascended only seven thousand eight hundred and nineteen feet in the air, would ascend fifty-eight thousand seven hundred and fifty feet in vacuo. Still we may safely infer, that, if the action of the powder is not diminished by circumstances of defect in the formation of the barrel, the greater the force of the powder, the greater must be the velocity of the ball. So great is the change in opinion of late, with regard to the proper length for gun-barrels, that many gunsmiths will now tell us, that short barrels carry farther than long ones; and the reason they give for this, is, the greater friction of the ball or shot in passing through a long barrel, by which their velocity is retarded and their force diminished. If the barrel be so long that the additional impulse which the ball or shot is continually receiving in its passage becomes less than the friction between them and the sides of the caliber, then, indeed, the barrel by being shortened will shoot with more force: but, as the length of barrel required to produce this effect is vastly greater than can ever be employed for any purpose, the objection does not hold. And it seems clear, that a piece may be made so long, that it will not throw a ball with so great a velocity as one that is considerably shorter; and the reason of this decrease of velocity may be, that in very long pieces the increase of the counterpressure of the external air in the cylinder may greatly exceed the force of the powder, and that the elastic fluid generated by the explosion of the powder is constantly escaping whilst the ball passes along the cylinder, which it not only does at the touch-hole, but also between the ball and the sides of the barrel; and hence may be inferred the necessity of touch-holes which do not prime of themselves, and of wadding that stops the barrel hermetically.

Having thrown every light upon this question that is necessary to determine us in our choice of the length, it will, perhaps, be expected that we give our opinion, what length of barrel is best calculated for general use. The barrels which are found to answer best for every purpose, are from thirty-two to thirty-eight inches; and whether we consult the appearance of the piece, its lightness, or the ease with which it is managed, we believe that a barrel not exceeding the one, or below the other, of these numbers, is the most eligible. We know that many of the fashionable gunsmiths pique themselves on the proportion they give to the different parts of their fowling-pieces, and thence deduce a superiority over their cotemporaries in favour of their own: to us it appears that the beauty of those proportions is more attended to, than any good reason why they are made so rather than otherwise.

Of the Causes of Scattering Shot.

From the prejudices which obtain so generally among sportsmen and gunsmiths, respecting the shot of fowling-pieces, it is very natural to suppose, that a variety of means have been sought after and practised, in order to remedy this real or pretended effect of scattering the charge. Mr. de Marolles mentions several methods employed for this purpose, none of which, however, appear to be practised in *England*. One of the methods he describes is as follows: An iron or wooden mandril, fitted to the caliber, is furnished at one end with small files, which are cut transversely only; this instrument being introduced into the barrel is turned round by means of a cross-handle, and forms a great number of superficial scratches in the metal, by which, they pretend, the defect of scattering the shot is remedied. One obvious effect of this operation, is, that of destroying the smoothness of the barrel within, and thereby rendering it liable to dirty the sooner; but we cannot conceive how the shot should be thrown closer by having the friction increased between it and the sides of the caliber; and that this will be the case, is evident from a rough barrel being always found leaded considerably after every discharge. Some make the barrel wider for three or four inches at the muzzle; and this bell-mouthed form is of very ancient date.

Espinar, whose treatise has been already mentioned, says, he has generally found this succeed in making barrels throw their shot closer. Were this true, we should expect to find this form of the barrel more generally used than it is at present, and not hear

hear so many complaints among sportsmen about their pieces.

When we consider that the grains of shot which are in actual contact with the sides of the barrel compose upwards of half the charge, we cannot be surprised if enlarging the surface of the caliber at the muzzle, and thereby increasing the number of grains that touch it, will tend to make the shot be scattered more widely. Espinar says, that the fault of scattering the shot is not owing to the hand of the workman, the barrels of the best masters being equally subject to it as those of others. He is of opinion, that it arises from the different quality of the iron composing the several portions of the barrel. Thus, he says, it may happen that the reinforced part is formed of iron which is harder, and closer in the grain, than that forming the fore part of the barrel; in consequence of which, and also from the fore part being so much thinner, the latter is the more shaken by the powder, and by that means produces a dispersion of the shot. He therefore pretends, that widening the muzzle in the manner already spoken of, by facilitating the explosion, diminishes the force of the powder upon this part, and causes the shot to be thrown more closely together.

This opinion of Espinar, however, not only appears absurd in itself, but there is not even the smallest ground for it in the greater number of instances; the barrels which are forged in separate pieces being very few indeed, compared with those that are forged in a single piece, and are consequently of the same quality throughout: nor does it appear that the former are more liable to the fault in question than the latter are.

Some gunsmiths, says Mons. de Marolles, pretend, that a barrel, in order to throw its shot closely, ought to have a caliber narrower in the middle than at either breech or muzzle; whilst others, again, insist that the caliber ought to contract gradually from the breech to the muzzle. With respect to these contrivances, however, we shall only observe, that they are both admirably calculated to make the piece recoil, if not to burst it.

Of all these contrivances, not one appears calculated to answer the end for which it was proposed. The greater number of gunsmiths are sensible of this, and therefore very seldom practise them, unless to indulge the whim of their customers. As far as our reason and experience are sufficient for enabling us to determine upon the matter, we would reject all the expedients that have been hitherto proposed, and give a decided preference to the barrels as they are usually made, *i. e.* to those whose caliber is very smooth and perfectly cylindrical throughout. Barrels of this kind have long supported their credit among the best sportsmen, whilst the pretended improvements have all experienced but a very temporary reputation, and are now almost entirely neglected. Would sportsmen only forbear to determine upon the merits or defects of their pieces, until they had given them a patient and impartial trial, by varying the quantity of powder and shot in different ways; we are inclined to think there would be fewer complaints made of the modern fowling-pieces. The chief source of error appears to be, that of overcharging. Every barrel, according to its caliber and weight, has a certain quantity of lead, and a suitable one of powder, which will be attended with greater certainty and effect than any others; and these must be determined by repeated trials. If we increase the quantity of shot above this, we lessen the force of discharge, and at the same time increase the recoil: and, if we increase the charge of powder, that of the shot remaining the same, we also increase the recoil, and disperse the shot much more than before. In every species of fire-arms, large charges of powder are found to disperse the shot very much, whilst with smaller charges than are generally employed it is thrown more steadily and closely. If the object, therefore, which we are about to fire at, be at too great a distance for the shot to take effect, and it happens that we cannot approach nearer to it, we ought not to increase the quantity of powder with a view to the shot being thereby thrown farther, as, by so doing, the increase of the range will be very trifling, whilst the dispersion of the shot will be greatly increased. The only expedient in this case, is, to employ shot of a larger size, the quantity of it, and of the powder, being kept the same as has been already found best suited to the piece.

We cannot venture to determine what degree of closeness or dispersion in the shot will entitle any piece to the name of a good or a bad one; but would observe, that if a fowling-piece, charged with an ounce of No. 2, patent-shot, and a drachm of powder, throws sixty grains into a sheet of paper eighteen inches by twenty-four, at the distance of fifty paces, we may consider it as very capital, although these are only about one-third of the charge; and that the same piece, continuing to be fired at the same mark and distance, will not, in the mean of four or five successive discharges, throw thirty-six grains into the paper; in short, that, when due attention is paid to finding the suitable quantity of powder and of shot, one piece will perform nearly as well as another.

Of Rifle Barrels.

It has been found that the flight of balls, both from cannon and small arms, is liable to very considerable variations; and that the piece, notwithstanding it was firmly fixed, and fired with the same weight of powder, sometimes threw the ball to the right, sometimes to the left, sometimes above, and at other times below the mark. It has also been observed, that the degree of deflexion increases in much greater proportion than the distance of the object fired at: thus, at double the distance, the deflexion of the ball from the line on which the piece is pointed is considerably more than double, and at treble the distance more than treble, what it was in the first. Mr. Robins secured a musquet barrel upon a block of wood, and firing it with a ball, at a board of a foot square, sixty yards distant, found that it missed the board only once in sixteen successive discharges; yet, when fired with a smaller charge, at the distance of seven hundred and sixty yards, it sometimes threw the ball one hundred yards to the right, and at other times

times one hundred to the left of the line it was pointed in. The direction upwards and downwards also was found equally uncertain, the ball sometimes bending so much downwards as to fall two hundred yards short of its range at other times. Yet the nicest examination could not discover that the barrel had started in the least from the position in which it was first fixed.

It is impossible to fit a ball so accurately to any plain piece, but that it will rub more against one side of the barrel than another, in its passage through it. Whatever side, therefore, it rubs against on its quitting the muzzle, it will acquire a whirling motion towards that side, and will be found to bend the line of its flight in the same direction, whether it be to the right or the left, upwards, downwards, or obliquely. This deflection from a straight line, arises from the resistance which the air gives to the flight of the bullet, it being greatest on that side where the whirling motion conspires with the progressive one, and least on that side where it is opposed to it: thus, if the ball, in its passage out, rubs against the left side of the barrel, it will whirl towards that side; and, as the right side of the ball will therefore turn up against the air during its flight, the resistance of the air will become greatest on the right side, and the ball be forced away to the left, which was the direction it whirled in. If the axis round which the ball whirls, preserved its position during the whole of the flight, the deflection would be in the same direction from the one end of the track to the other. But, from accidents that are unavoidable, the axis of the whirl frequently changes its position several times during the flight; so that the ball, instead of bending its course uniformly in the same direction, often describes a track that is variously contorted. So great, however, is the tendency of the ball to deflect itself towards the side it rubs against, that although, when fired out of a barrel that is bent towards the left hand, it will be thrown from the piece in the direction of the bend, yet as the ball in this case will be forced to rub against the right side of the muzzle, and thus turn its left side up against the air; so it will be found to alter its course during the flight, and bend away towards the right hand, so as to fall a considerable way to the right of the line in which the piece was pointed.

From what has been said, it will readily appear, that these variations will be more frequent and considerable when the ball runs very loose in the piece; or when, from any roughness on its surface, or on the inside of the barrel, a considerable degree of friction takes place between them. With a view to prevent friction, it has been proposed to grease the ball; but this will be of little service. All that can be done in a plain barrel, is, to have the balls cast very solid and true, and afterwards milled in the same manner as is now practised upon shot: the barrel also should be very smooth on the inside, and the ball fit it very accurately, so as to leave scarcely any windage. And yet, with the help of all these, it will still be very difficult to prevent it altogether; for gravity will constantly act, and friction on the under side will naturally be occasioned by the weight of the ball.

From considering the causes of this aberration in the flight of bullets, it will be pretty evident, that the only means of correcting it is by preventing the ball from rubbing more against one side of the barrel than another in passing through it; and by giving to the bullet a motion, which will counteract every accidental one, and preserve its direction by making the resistance of the air upon its fore part continue the same in every part of the flight. The contrivance for this purpose is termed rifling, and consists in forming upon the inside of barrels, a number of furrows either in a straight or spiral direction; into these the ball is moulded, and any rolling motion along the sides of the barrel, in its passage out, thereby prevented. Barrels of this construction have been in use upon the continent since the middle of the sixteenth century, but were little known, and still less employed in *England*, until within these fifty years. The spiral rifled barrels, however, have entirely superseded the straight rifled ones, because, although the latter prevented the rolling motion of the ball that takes place in a plain barrel, yet they do not communicate any other motion, that could serve to correct the variations that may occur during the flight.

The furrows, or channels, which are termed the rifles, vary in number according to the fancy of the workman, or that of the purchaser, but are never less than six, or more than twelve, in a common-sized piece. Their depth is equally subject to variation; but the breadth of the furrows and of the threads is generally the same. In some pieces, the spirals make a half turn, in others three-fourths, and in others, again, an entire revolution in the length of the barrel: an intire revolution, however, is the most common; though from the great difference in the length of rifle barrels, there should be some standard assigned for the obliquity of the spiral. There is, without doubt, a certain obliquity of the spirals which would communicate a rotary motion to the ball, sufficient to correct any aberration in its flight; and this might be determined by comparing the effects of a number of pieces, that differed only in the obliquity of the rifles. Barrels intended to be rifled are previously bored and smoothed within, in the manner already described: they are, however, forged as much thicker than plain barrels as the depth of the rifles; for, although the threads of the spiral add to the weight of the barrel, they do not increase its strength in the least, with regard to the force exerted upon it by the powder.

These pieces are charged in various ways. In general, the ball, which is somewhat larger than the caliber before it was rifled, is driven down to the powder, by means of an iron rammer, struck with a mallet, whereby that zone of the ball which is in contact with the sides of the barrel, becomes indented all round, and is moulded to the form of the rifles. When the piece is fired, the projections of the ball which fill the rifles, being obliged to follow the sweep of the spiral, the ball thereby acquires a rotary motion upon an axis that corresponds

responds with the line of its direction; so that the side of the bullet which lay foremost in the barrel, continues foremost during the whole of the flight. By this means the resistance of the air is opposed directly to the bullet's progress; and not exerted more against one part than another of that side which moves foremost; and accordingly the bullet preserves the line of its direction with very great steadiness.

It appears that neither the inventors of spiral rifle barrels, nor the persons who first used them, were at all acquainted with the principles upon which they produced their effects. Some were of opinion, that, owing to the ball not passing out so quickly as out of a plain barrel, the powder was more completely inflamed, and thereby exerted a greater force upon it. Others, and these by far the greater number, thought that the ball, by combining the rotary with the progressive motion, did, as it were, bore the air; thereby flying much farther, and penetrating solid bodies to a greater depth, than when discharged from a plain barrel. But Robins asserts, that as the bullet meets with a greater resistance in its passage through a rifled barrel than through a plain one; so neither its velocity, nor the distance to which it is thrown, is so great when fired from the former as when fired from the latter: and this difference will be very remarkable if the rifles be deep, and the ball fills them up completely; the friction, in that case, bearing a considerable proportion to the force of the powder. For the same reason, he says that barrels which are newly rifled, and, consequently, somewhat rough within, do not throw their balls so far as they will be found to do after being used for some time, and thereby rendered smoother; and, that the mistake of those who supposed that rifle barrels threw their balls to a greater distance than plain barrels did, arose from their finding, that, with the former, they could hit a mark at three or four times the distance they could do with a plain barrel.

Besides the method of loading a rifle-barrel gun, by driving down the ball with an iron rammer, there are several others which we shall mention. In *Germany* they sometimes charge them in the following manner: a piece of thin leather or fustian is cut into a circular shape, and so large as to cover a little more than half of the ball; this piece is then greased on one side, and, being placed over the muzzle, the ball is laid upon it, and both thrust down together; by this means the leather or fustian enters into the rifles, and the bullet, being firmly embraced by it, acquires the proper rotary motion in its passage through the barrel. If this method be equally effectual, it is certainly much more easy and expeditious than that already described. Some of the old pieces of this construction were charged by taking out the breech every time; and, we are informed, that the pieces used by the *Hessian* yagers, are charged the same as the common screw-barrel pistols. By far the most expeditious way of charging rifled pieces, however, is, by means of an ingenious contrivance which now generally goes under the name of Ferguson's rifle-barrel, from its having been used by Major Ferguson's corps of rifle-men during the last *American* war. In these pieces, there is an opening on the upper part of the barrel, and close to the breech, which is large enough to admit the ball. This opening is filled by a rising screw which passes up from the lower side of the barrel, and has its threads cut with so little obliquity, that, when screwed up close, a half-turn sinks the top of it down to a level with the lower side of the caliber. For, when the ball is forced through the rifles by the effort of the powder, the friction must be considerably more than when it is moulded to them in the ramming down. It appears, however, that in whatever way the piece is charged, this friction might be much diminished, by making the channels or furrows very broad in proportion to the breadth of the threads, and, instead of leaving the latter flat on the top, to have them terminating in a sharp edge, whereby they would cut easily into the ball. This would also serve to lessen the additional quantity of metal in the barrel, which, as the rifles are now formed, bears a very considerable proportion to the weight of the whole piece. The depth of the rifles, likewise, need not be great, as a very slight hold of the ball is sufficient to communicate the desired motion: deep rifles are particularly detrimental when the piece is charged at the breech; for, if the ball be large enough to fill them up intirely, the resistance, and, consequently, the recoil, will be very great; and, if it does not fill the rifles, there will be so much windage, that a considerable portion of the flame will escape past it, and the force of the discharge be thereby greatly lessened.

To render rifle-barrels as complete as possible, we should endeavour, by every means in our power, to diminish the friction between the bullet and the sides of the barrel. We have already mentioned some alterations which we think would conduce to this. The turns of the spiral being exactly parallel to each other, and both the threads and the furrows being made perfectly smooth, are circumstances absolutely essential to perfection; as thereby the bullet, when once put in motion, will pass through the barrel with very little friction. The most accurate method of ascertaining this, is, by pouring melted lead into the barrel so as to form a cylinder of two or three inches in length, and which is exactly fitted to one portion of the caliber: if this cylinder, when moved a little, passes without stop or difficulty from one end of the barrel to the other, by being pushed gently, the rifling may be pronounced very exact. The same thing may be tried with a plug or ball of lead, driven into one end of the barrel so as to fill the rifles, and pushed forward with the ram-rod.

From the imperfect manner in which any instrument works in a spiral direction within the barrel, the furrows are generally left very rough; and hence rifled pieces are found to throw their ball to a greater distance, though with equal accuracy, after being used for some time, and thereby having the bottom of the furrows, and edges of the threads, worn smooth. These might be rendered smooth at first, by means of a plug of lead or pewter, made to fit the rifles, being fixed to an iron rod, and wrought backwards and forwards in the barrel with fine emery and oil: or the leaden plug might be employed as a pattern to form one of brass or steel by, for the same purpose.

As

As the pieces which are charged at the breech are considerably dearer than the others, and, excepting the expedition with which they can be charged, are really inferior to those charged at the muzzle; we are of opinion, that the latter might, by a very simple means, be rendered equally serviceable with the former. This is nothing more than having the balls cast with projections that answer to the rifles; which may be done with great ease and accuracy by making corresponding hollows round a zone of the bullet-mould: by this the ball may be fitted so accurately to the rifles, as to leave scarcely any windage; whilst the friction will be less than it is either when the ball is put in at the breech, or forced in by the muzzle.

In treating of the causes of aberration in the flight of balls, we have supposed the air to be perfectly still; it being evident, that the force of the wind will affect balls considerably, whether they are fired from a plain, or from a rifled barrel; but, for the reasons already given, will affect the former in a much greater degree than the latter.

Pieces intended for shooting with ball, whether they be plain or rifled, ought to be of much more equal thickness, from the breech to the muzzle, than those that are intended for shot only. In every barrel, there is an undulating vibration communicated to the metal by the explosion. This is most remarkable in a thin barrel, and when the charge is great; and may be rendered very evident by the following easy experiment: Take a piece of fine steel or iron-wire, that is tempered so as not to stretch readily; pass it once round the thin part of the barrel, and twist it tight. The piece being then charged and fired, the wire will be found burst asunder, or considerably untwisted: It is evident, that such a degree of vibration in the barrel must have an effect upon the ball in its passage through it; and that the only means of preventing it, is, by having an additional quantity of metal in the barrel, and especially in the fore part of it. The same circumstance certainly obtains, though in a much less degree, in fowling-pieces; and, on this account, as well as on that of the recoil, a barrel which is strong enough to withstand any charge that is required, may yet have too small a quantity of metal in it.

Having now fully explained the principles upon which rifle-barrels produce their effects, our readers will be prepared to consider how far the straight rifling can be useful when employed for shot. These pieces are said to be very common in *Germany*, and are used by a few persons in this country; though we understand that the greater number even of these few are now less partial to them than they were at first. If the divergency of shot arises from the same cause as that of ball, viz. from acquiring a whirling motion to one side or other by rubbing against the sides of the piece, it is evident that rifling the barrel can have no tendency to prevent this. For let it be granted, that the channels or flutings within are semicircular, and that the shot is exactly adapted to these (two circumstances said to be necessary to the perfection of these pieces) it cannot be imagined that grains will acquire less of the rolling motion in passing along these flutings, than in passing along the sides of a plain barrel; on the contrary, it will necessarily be greater, as the points of contact are considerably more numerous.

SHORT-JOINTED; a horse is said to be short-jointed that has a short pastern.

When the joint or the pastern is too short, the horse is subject to have his fore-legs from the knee to the coronet in a straight line.

Commonly your short-jointed horses do not manage so well as the long-jointed; but out of the manage, the short-jointed are the best for travel or fatigue.

SHOT-MAKING; shot for fowling should be well sized, and of a moderate bigness, for should it be too great, then it flies thin and scatters too much, or if too small, then it hath not weight and strength to penetrate far, and the bird is apt to fly away with it: in order therefore to make it suitable to the occasion, it not being always to be had in all places, fit for your purpose, I have therefore set down the true method of making all sorts and sizes under the name of mould-shot. Its principal good properties are to be round and solid.

SHOULDER OF A HORSE, is the joint in the fore quarters that joins the end of the shoulder-blade with the extremity of the fore-thigh; also that part of his forehand that lies between the withers, the fore-thigh, the counter and the ribs

SHOULDER OF A BRANCH, is that part of it which begins at the lower part of the arch of the banquet, over-against the middle of the fonceau, or chaperon, and forms another arch under the banquet.

The shoulder of the branch casts a greater or lesser circumference, according as it is designed to fortify or weaken the branch.

SHOULDER-PEGGED HORSES, are so called when they are gourdy, stiff, and almost without motion.

A horse charged with shoulders, is a horse that has thick, fleshy, and heavy shoulders.

SHOULDER-SPLAIT, a horse is said to be such when he has given his shoulders such a violent shock, as to disjoint the shoulder-bone from the body.

SHOULDERS OF A HORSE, should be sharp and narrow at the withers, of a middle size, flat, and but little flesh upon them; for if he be charged with shoulders, he will not only be heavy on the hand, and soon weary, but trip and stumble every minute, especially if with such shoulders his neck be thick and large.

Some saddle horses, on the contrary, are too small in the shoulders; that is, when their breasts are so narrow that their fore-thighs do almost touch: such horses are of little value, because they have a weak fore-hand, and are apt to cut by crossing their legs, and carry them so confusedly in galloping that they are subject to fall.

The shoulders of a well shaped horse are compared to those of a hare, and the distance between them should be little more than half the breadth of his hind-quarters.

SHOULDER-PIGHT IN A HORSE, is a malady, being the displacing of the point of the shoulder by some great fall, rack, or pain, which may be known by one shoulder-

ſhoulder-point's ſticking out farther than its fellow, and alſo he will halt downright.

As for the cure, ſwim the horſe up and down in deep water a dozen times, which will cauſe the joint to go back into its right place again.

Then take two pins of aſh-wood, about the bigneſs of a finger, about five inches long, and ſharp-pointed; ſlit the ſkin an inch above and beneath the point of the ſhoulder, and from above thruſt one of theſe pins downwards, ſo that both the ends may equally ſtick within the ſkin: but if the wooden pin will not paſs through eaſily, you may firſt make way for it with an iron pin.

When you have done this, make two other holes croſs to the firſt, ſo that the other pin may croſs the firſt right in the midſt, with a right croſs, and the firſt pin ſhould be ſomewhat flat in the midſt, to the end that the other being round, may preſs the better without ſtop, and cloſe more exactly together.

Then take a piece of a line, a little bigger than a whip-cord, and make a loop at one end, which being put over one of the ends of one of the pins, ſo that it may lie between the pin's end and the ſkin; faſten this laſt end with your packthread to the reſt of the cord, ſo that it may not ſlip: both the pins and the cord ſhould be firſt anointed with hog's greaſe.

Then bring the horſe into the ſtable, and let him reſt for nine or ten days, but let him lie down as little as may be: put a paſtern ſhoe on the fore-leg, and after nine or ten days anoint the ſore place with a little dialthæa, or hog's greaſe, ſo turn him out to graſs, and let him run there till the pins are rotted off; if he be worked in a cart after the end of a month, it will ſettle his ſhoulder the better, and make him the fitter for riding. *See* STRAINS.

SHOULDER-PINCHING, a misfortune that befals a horſe by labouring or ſtraining when too young, or by being over-loaded.

This malady may be known by the narrowneſs of his breaſt, and by the conſumption of the fleſh of the ſhoulders, inſomuch that the fore-part of the ſhoulder-bone will ſtick out and be higher than the fleſh; and if it be of a very long ſtanding, the horſe will be very hollow upon the briſket, towards the arm-holes, and go wider beneath the feet than above the knee.

For the cure: give him a ſlit with a ſharp knife an inch long, upon both ſides, an inch under the ſhoulder-bone; when it is done with a large quill put into the ſlit, blow up firſt one ſhoulder and then another, as big as poſſibly you can, and even up to the withers, and with your hands ſtrike the wind equally into every part of the ſhoulders, and when they are both full, beat all the wind places with an hazle wand, over all the ſhoulder; after that, with a flat iron ſlice looſen the ſkin within from the fleſh.

Then rowel the two ſlits or cuts with two round rowels made of the upper leather of an old ſhoe, with an hole in the midſt, that the corruption may run out; let the rowels be three inches broad, and put in flat and plain within the cut; this may be as large as you think fit to lay the ſame open.

SHOULDER-SPLAITING, } a malady that may
SHOULDER-TORN, } befal a horſe by ſome dangerous ſliding, either at home or abroad, by which the ſhoulder is parted from the breaſt, and ſo leaves an open rift, not in the ſkin but in the fleſh, and the film next under the ſkin, which renders the horſe ſo lame that he is not able to go; and it may be known by his trailing his legs after him in going.

For the cure: put a pair of ſtraight paſterns on his feet, and keep him in the ſtable without diſturbing him. Then take a pint of ſalad-oil, one pound of dialthæa, half a pound of oil of bays, and as much freſh butter, which melt all together in a pipkin; and with this anoint the part, and alſo round about the ſide of the ſhoulder; this will cauſe both the ſaid places and all the ſhoulder to ſwell in two or three days time; then prick all the ſwollen parts with a hamet, or fleam, or a ſharp hot iron, and anoint the parts with the before-mentioned ointment.

But if it ſtill continues to ſwell and gather to a head, you muſt lance it where the ſwelling gathers moſt, and feels ſofteſt under your finger, and tent it with green ointment.

SHOULDER-WRENCH, a misfortune that befals horſes ſeveral ways, ſometimes by turning and ſtopping too ſuddenly upon ſome uneven ground, ſometimes by running too haſtily out at ſome door; at other times by ſlipping or ſliding either in the ſtable or abroad, and by ſeveral others.

The beſt receipt for the cure of it, is to take up the horſe's ſound leg before, to double it backwards in the joint, and ſo tie it with a liſt, or ſome ſoft thing, ſo faſt that it will not untie, and then to force him to go upon his three other legs till he ſweats at the roots of his ears, flanks, and between his legs; then untie his leg and let it down, and this will cauſe the blood to deſcend into the plate-vein, that it will be more viſibly ſeen when it is tied up; but if it does not appear ſo plain as you would have it, wet it with warm water with your hands, and ſtroke it downwards towards the place where you are to let him blood, and this will cauſe it to appear more viſibly.

Then tie up his leg again, and bleed him in the common bleeding-place, between his cheſt and lame leg, taking away two quarts or more, according as the ſtrain is great or ſmall: ſave a quart of the blood, and put a handful of ſalt in it, ſtirring it while it is running, that it may not clot; and when he has done bleeding, and you have pinned up the mouth of the plate-vein with a leaden pin or needle, to prevent it from bleeding, and bound ſome hairs of the mane or tail about the pin, to keep it faſt and ſteady, till a day or two after that you take it out, ſmear him with the blood; but before you pin him up, anoint him all over the ſhoulder and breaſt, between his legs, and down to his knee, with oil of turpentine and ſtrong beer or ale, in equal parts, ſhook and mingled together very well in a glaſs vial; clapping and dabbing it well with your hand; then ſmear all the ſaid places anointed, with the blood and ſalt, chafing and dabbing this alſo very well with your hand; then ſet him up to his meat, and with a liſt, or garter, tie

tie both his legs together as close as you can; then the next day untie him and walk him out, and if you find that he goes pretty well, ride him gently about a mile, and then set him up again, tying his fore-feet together as before.

But if he does not go well the first day, do not ride him, but only walk him the second; and the third day, after his dressing, do not only tie his legs, but flat a stick on both sides, like a wedge, about the bigness of a six-pence, drive this between the toe of his shoe and the toe of his foot, fast, so that it may not come out; and always while he stands still in the stable, tie his legs close, and peg him with the wedge; and when you take him out to walk or ride, untie his legs and take out the wedge.

Do this every night and morning until he is cured, which will be in a few days if the hurt has been newly received.

The Sieur de SOLEYSEL, and others, prescribe the following medicine for these maladies:

Take half a pound of new wax, the same quantity of rosin, pitch, and common turpentine; a pound of oil of olives, two pound and a half of capon's grease, the same quantity of badger's, horse's, and mule's, and of the marrow of a stag: oil of turpentine two ounces; castor, worms, chamomile, St. *John's* wort, linseed, and of foxes, two ounces: set the olive oil in a bason over a clear fire, with the wax, rosin, and pitch pounded together, stirring them over the flame till they are dissolved; then add the fats and stag's marrow, and then the turpentine, and let the whole incorporate over a gentle fire.

Then pour in the oils, and keep stirring them for half a quarter of an hour; then take it off the fire, continuing to stir it till it is cold.

When you apply this ointment, rub the affected part with a wisp of straw, and having warmed your hand, chafe in the ointment as hot as the horse and your hand is able to bear it, holding a hot fireshovel near the part to cause it to penetrate: repeat this once in two days.

SHRAPE, } a place baited with chaff or corn, to
SCRAPE, } entice birds.

To SHRIEK, } (with Foresters) to cry or make a
To SHRIKE, } noise, as a badger does at rutting-time.

SIGNS OF SICKNESS IN HORSES. The first signs of a horse's indisposition, is his loathing his food; then it must be observed, whether he hath a wild and haggard look, for the eye of an horse is, as it were, a glass, through which you may discern the inward disposition of his body; observe likewise, whether his ears be cold, his mouth hot and foaming, or clammy, the hair of his flanks rough and staring, and paler than usual about the ends; his dung hard or black, or greenish, and his urine clear and undigested like water.

In this case his eyes are subject to weep, his head heavy and hanging down; he is apt to stumble as he walks; he is slow and dull, though he was vigorous before; he never minds other horses; contrary to his former custom, he rises and lies down often in the stable, looking towards his flanks, which are doubled and folded in; his heart beats, which may be perceived, by laying your open hands between the shoulder and sengle, on the left side; and he is also indifferent and unconcerned at what is done to him.

The Sieur de SOLEYSEL observes, when a horse has been long sick, stales without striding, and even without thrusting forth his yard, letting the water drop from the skin or sheath, it almost always portends death, unless in such horses as have that custom when they are in health; in which case you must draw no conjectures from this sign, though they continue to stale after the same manner during their sickness.

Another no less fatal sign is, when the hair of his tail, and on his skull, can be easily plucked off.

It is a dangerous sign, when a horse either never lies down, or starts up immediately, not being able to breathe freely in a lying posture; whereas if in the declension of this disease he lies down, and continues long in this posture, it is a very good sign.

When a sick horse turns up the whites of his eyes, you may conclude that he is in pain, and that his disease is of long continuance.

From these signs, you may conjecture in general, that your horse is sick, and afterwards you must endeavour to discover his particular distemper, that you may be able to apply suitable remedies; for a disease that is known, is half cured.

But to be more particular; heaviness of the countenance, extreme looseness, or costiveness, shortness of breath, loathing of meat, a rotten cough, slowness of pace, hollowness of flanks, hanging down of ears, *&c.* but especially if an horse, who before was usually of a cheerful countenance, hangs down his head, it is a sign of a fever, head-ach, the staggers, or sore eyes.

If he turns his head backward on the right side, to the part aggrieved, it indicates an obstruction in the liver; but if down to his belly, of the cholic, bots, or worms.

If water runs out of his mouth, it is a sign of the staggers, or wet cough.

The hollowness of a horse's temples, is a sign either of the strangles, or old age.

A swelling about the ears indicates the poll-evil; if it be under them, it is a sign of the vives; and in the mouth, of the canker, flaps, or lampers.

If he have a stinking breath, or foul matter issues from his nostrils, it is an indication that he has an ulcer in his nose or head; if the matter be black, it is a sign of the mourning of the chine, or the like; and if white, of the glanders; if yellow, it shews a consumption of the liver, and rottenness of the lungs.

If his breath or body be hot, they indicate a fever and heat of the stomach; when a horse's tongue hangs out and is swelled, it indicates the stronger that his liver is inflamed; if besides he forsakes his meat, that he has either the dry or moist yellows.

Shortness of breath, and beating of the flanks, indicate a fever, or the strangles; but if the passage of his throat be stopped, it is a sign that the film of the lungs is broken, and the spleen is troubled, or else that he is broken winded.

If a horse eats and drinks little, it is a sign of a cold liver;

liver; but if he covets to drink much, and eats but little, it is either a sign of a fever, rotten lungs, or the dry yellows.

If there be swelling under his throat, it is an indication of the glanders; if about the roots of the tongue, of the strangles; but if there be nothing but little knobs, like wax kernels, they indicate no more than that he has a cold.

Coughing, or an offering to cough, is a sign of the glanders, or a wet or dry cough, or a consumption, or foundering of the body.

If a horse be scabby, and ulcerous all over his body, and about the neck, it is a plain indication that he has the mange; an ulcer full of knots, creeping about the veins, shews the farcy; if it spread abroad only in one place, it is a canker; when hollow and crooked, a fistula; but if it be a spongy wart, full of blood, it is an anbury.

A swelling on the left side, is an indication of a sick spleen; in the flank, of a cholic; but if in the belly and legs, of the dropsy.

The hollowness of the back is an indication of the dry malady of the dropsy.

Staring of the hair indicates a bad stomach, or a foundering in the body; but generally a cold, or want of clothing.

Leanness and gauntness, indicate him to be hidebound, in a consumption; that he is troubled with a dry malady, inflammation of the liver, foundering in the body, worms, cholic, or the yellows.

Staling with pain, shews foundering in the body, the stone, or wind cholic; and if his urine be blackish and thick, a pain in the kidnies; but if yellow, the glanders.

Trembling is an indication of a fever, or of foundering in the body; and if a horse trembles after drinking, it shows he has an ague fit upon him, and he will afterwards glow, and sometimes he will sweat afterwards.

Laxativeness, or looseness of body, is an indication of the heat of the liver; and on the contrary, costiveness indicates the dry yellows, or diseases of the gall.

If a horse strikes at his belly with his foot, it is a sign of the cholic; but if in striking he fisks his tail also, then either bots or worms are indicated.

If a horse lies much on his left side, it is a sign of the spleen; and if on the right side, of the heat of the liver; and if he be restless, it is probable it may be caused by bots and worms, cholic, or griping in the belly; but if he spreads himself abroad, it indicates the dropsy; and if he groans when he is down, it betokens a sick spleen, moist yellows, bots, or film broken; but if he is not able to rise when he is down, it is a sign either of a mortal weakness, or foundering in the body and legs.

Signs may also be taken from the urine of a horse; these according to some authors, are accounted not so material and certain as those from the dung are, yet others again say, they are more certain. And

That if a horse in his sickness stales clear, and it being saved and set by, there be no sediment in it, it is an indication of a growing distemper; but if the urine turn of a reddish or yellowish colour, and has either a cloud swimming in it, that is not black or earthy, and a sediment falling to the bottom, and begins to have a rank smell, it shews that the disease is beginning to break; but if the cloud be of an earthy or black colour, cohering in a body without parting, it is a sign that the disease will prove mortal.

Again, if a horse's urine be different at different times, sometimes giving indications of soundness, and at other times of sickness, it then intimates there is a malignity in the disease, proceeding from an inequality of the composition of the blood, which also causes an inequality in its motion.

Urine of a yellowish colour, rather thick than thin, of a strong smell, and piercing quality, is reckoned healthful, sound, and good; but, on the contrary, if it be of a deep red tincture, either like or inclining to blood, then the horse has either had too great heats, by being over-ridden, or ridden too early after winter grass.

If a horse's urine be of a high colour, clear and transparent, like old *March* beer, it is a sign there is an inflammation in his body, and he has taken a surfeit; if it bear a little cream at the top, it indicates a weakness in the back, or consumption of the seed; but a green one, is a kind of a consumption in the body; with bloody strokes, is a sign of an ulcer in the kidnies; and one that is black, thick, and cloudy, indicates approaching death.

The dung of a horse is the best discoverer of his inward parts: the colour or complexion of which ought to be well observed, when he is in best health, and at best feeding; and as he is found to alter, so a judgment is to be made, either of his health or sickness. But to be more particular:

If his dung be clear, crisp, and of a pale yellowish cast, hanging together, and not separating, more than as it is broke by its own weight in falling, and is neither so thick nor so thin, but that it will flat a little on the ground, and indeed both in scent and substance, resemble the ordure of a sound man, then he is clean, well fed, and without imperfection.

If again his first and second dung be well coloured, yet fall from him in round knots or pellets, and the rest be good, it is not much matter; for it is only an indication that he has eaten hay lately, and that will always come away first; but if all his dung be alike, then it is a sign of foul feeding, and that he has eaten either too much hay, or too much litter, and too little corn.

When his dung is in round pellets, and blackish or brown, it is a sign of inward heat in the body; if it be greasy, of foulness, and that the grease is melted, but cannot come away.

If he voids grease in gross substance with his dung, and it is white and clear, and comes away kindly, he is in no danger; but, on the contrary, if it be yellow or putrefied, then it is a sign that the grease has lain long in his body, and, if not prevented, that sickness will ensue.

Again, if the dung be strong and hard, it indicates that he has had too strong heats, and that he will afterwards be costive, if it be not prevented; if it be pale and

and loose, it indicates either inward coldness of body, or too much moist and corrupt feeding, but if the dung is stinking, it shews the heat of the liver; but, on the contrary, if it have no smell, the coldness of the liver; but if it be undigested, then it is an indication either of a consumption, or of a dry malady.

Signs may also be taken from the pulse of a horse, which may be very plainly felt upon his temples, and fore-legs; but as that method has not yet obtained, among the experienced in that way, I shall pass it over.

But notwithstanding what has been said, in a more particular manner, as to the signs of sickness in horses, it ought to be observed in general, that it is a very difficult task to arrive at any certain knowledge of the diseases of brute beasts, and therefore it ought not to be wondered at, that even farriers themselves are often mistaken, as to the signs, because they can only judge by outward appearances; and especially because there are many diseases, that have the same common symptoms; and although a person may by them be assured that a horse has a fever, or a strangury, yet he can scarcely at the same time be certain, without a very nice examination, whether he may not have an inflammation in the pleura, or in his kidnies; for the signs that these animals usually give in the affections of particular parts, is their turning their heads towards that part, and indeed that is not always to be depended on; for a horse may turn his head to the right side of his belly, and thereby a person may be mistaken in supposing that distemper to be a diseased liver, as the horse often gives the same sign in the cholic.

SIDE; to ride a horse side-ways, is to passage him, to make him go upon two treads, one of which is marked by his shoulders, and the other by his haunches.

SIDE-LAYS, (with Hunters) dogs set in the way to let slip at a deer as he passes by.

SIGUETTE; is a cavesson with teeth or notches, that is, a semicircle of hollow and vaulted iron, with teeth like a saw, consisting of two or three pieces joined with hinges, and mounted with a head-stall, and two ropes, as if they were the cavesson that in former times were wont to be put upon the nose of a fiery, stiff-headed horse, in order to keep him in subjection.

There is a sort of figuette, that is, a round iron, all of one piece, sewed under the nose-band of the bridle, that it may not be in view.

SINEW, to unsinew a horse, is to cut the tendons on the side of his head.

A horse is said to be sinew-shrunk when he is over-rid, and so borne down with fatigue, that he becomes gaunt-bellied, through a stiffness and contraction of the two sinews, that are under his belly.

SINEW SPRUNG, is a violent attaint, or over-reach, in which a horse strikes his toe, or hinder feet, against the sinew of the fore-leg.

For cramps or convulsions in the sinews: these are violent contractions or drawings together of the limbs, either throughout the whole body, or particularly in one limb or member; and proceed from causes either natural or accidental; if from natural causes, they proceed either from too great fulness or emptiness.

When they proceed from fulness, they are caused by a surfeit, either in eating or drinking, or the want of proper evacuation.

When from emptiness, they proceed from too frequent, and too plentiful blood-lettings, or too much and violent purgings, or too hard labour; all which fill the hollowness of the sinews with cold, windy vapour, which are the only great causes of convulsions.

If they proceed from accidental causes, then it is either from some wound received, where a sinew has been but half cut asunder, or only pricked, which presently causes a convulsion all over the body.

The signs of the distemper are, the horse will carry his neck stiff, and will not be able to stir it; his back will rise up like the back of a camel, or like a bended bow; his crupper will shrink inward, his fore-legs will stand close together, and his belly will be clung up to his back-bone; when he lies down he will not be able to rise, especially from the weakness of his hinder limbs.

The cure: First sweat him, either by burying in a horse dunghill, or else by applying hot blankets doubled, about each side of his heart, and body; then after his sweat, anoint his body all over with oil of petroleum, for that is much better than oil of bay, or oil of cypress.

Then give him to drink the following liquor:

Take one drachm of assafoetida, with anniseeds, seeds of fenugreek, and cummin seeds, of each half an ounce; put these into a quart of strong white wine, and add to them three or four large spoonfuls of olive oil, taking care to keep him warm after the drink, and to feed him with good bean bread, and warm mashes, made of malt, ground, and warm water; and this will, in a little time, reduce his sinews to their former ability.

But if the convulsion came accidentally; as by the prick, or half cut of a sinew, then search for the wounded sinew, and, with a pair of sheers, clip it asunder, and the convulsion will cease.

But if it be only a cramp, and but in one limb, then rub or chase the grieved part with a hard wisp, or hay-rope, and the pain will cease.

SINGLE, (with Hunters) the tail of a roe-buck, or any other deer.

SIT-FAST, } a malady in a horse, being an
STICK-FAST, } hard knob, even as hard as a horn, that grows on a horse's skin, under the saddle, fast to his flesh, which comes by a saddle-gall, or bruise; which not imposthumating, the skin falls down, and looks like a hard piece of leather.

The method of curing it, is to take a long nail, with a point turned inwards, and with that, to take hold of the edge of the dead skin or horn, which will rise from the sound skin, and with a sharp knife cut away the dead and hard skin from the sound flesh; and to heal it up, by pouring hot butter into it morning and evening, and when the flesh is made even, dry and skin it, either with the powder of honey and lime, or with soot and cream mixed together, or wash the wound either with

urine or white wine, and dry it up with the powder of oyster-shells burnt, or bole ammoniac.

SKITTISH HORSE; is one that leaps instead of going forward, and does not set out or part from the hand freely, nor employ himself as he ought to do.

SKY-LARK: there is a great difference between one sky-lark and another, for one may not be worth two pence, when another shall be worth two pounds.

This bird is very hardy, and will live upon any food in a manner, so that he have but once a week a turf of three-leaved grass.

This bird is later than the wood-lark by almost two months, for as the wood-lark hath young ones in *March*, the sky-lark hath rarely any till the middle of *May*.

But though in winter we see great flocks of these birds, yet we find the fewest of their nests of any birds, that are known to be so plentiful.

They commonly build in corn, or high grass meadows, and have usually three or four in a nest, rarely, if ever, exceeding that number.

The young may be taken at a fortnight old, and will be brought up almost with any meat; but if they have at first sheep's heart and egg chopped together, till they be about three week's old, or till they will feed themselves, it will not be amiss; and when they come to feed themselves, give them oat-meal, hemp-seed, and bread, mingled together with a little egg, but let the hemp-seed be bruised; but you must be sure at first to chuse such seed as have good sweet kernels, or it will do them no good.

Being brought up young, these birds may be trained to any thing, but you must be sure to give them sand at the bottom of their cage, and to let them have a fresh turf every week; but they must have no perches in their cages, as the wood lark, for these are field birds.

Now as to the manner of taking an old sky-lark, it may be done with an hobby and nets, as the wood-lark is catched. *See* WOOD-LARK.

But there are also other ways for it in dark nights with a trammel net, of thirty-six yards long, and six yards over, run through with six ribs of packthread, which ribs at the ends are put upon two poles, sixteen feet long, made lesser at each end, and so drawn between two men, half a yard from the ground every six steps, touching the ground to cause the birds to fly up, otherwise the net may be carried over them, without disturbing them; so when you hear them fly against the net, clap it down, and they are safe under it.

This net will not only take sky-larks, but all other sorts of birds that come near, such as partridges, quails, woodcocks, snipes, fieldfares, *&c.* and almost in every dark night.

Another way of taking them, is with a pair of day nets, and a glass, which is fine sport in a clear frosty morning; these nets are commonly seven feet deep, and fifteen long, knit with *French* mesh, and very fine thread; these nets take all sorts of birds that come within their compass.

These larks are also taken with a low bell, with a great light carried in a tub, both by one man, and the net by another, or the bell is carried by one man, as also the tub and candles, and the net by another; and the light and these little bells together, so amazes the birds, that they lie for dead, and so the net is tossed over them.

This method of birding has a great convenience beyond the trammel net; for with the bell the fowlers can go among the bushes, by rivers, and shaw-sides, where the snipes and woodcocks commonly lie, and it is a sure way of taking a covey of partridges.

The last way of taking larks, is in a great snow, by taking an hundred, or two hundred yards of packthread, fastening at every six inches a noose made of horse-hair, two hairs are sufficient, if they be twisted together; the more line the better, because it will reach the greater length, and of consequence afford the more sport.

Then at every twenty yards you must have a little stick to thrust into the ground, and so go on till it be all set; when you have done this, scatter some white oats among the nooses, from one end to the other, and you will find the larks flock thither; when three or four are taken, take them out, or else they will make the others fly; and when you are at one end, they will be at the other end feeding; so that you need not fear scaring them away, for it makes them more eager at their food.

If the snow fall not till after *Christmas*, these birds seldom or never prove good for singing; as for those you intend to keep for singing, take them in *October*, and then they will sing a little after *Christmas*.

Of those chuse out the straightest, largest bird, and he that has the most white upon his tail, for these are the most usual marks of a cock.

As for a cage, you must let it be a large one, with a dish in the middle, or at one end, and put also some water, when you place the turf in it, for the water causes the turf to grow in the cage.

If you find him wild, tie his wings for two or three weeks, till he becomes both acquainted and tame; as soon as you perceive him pretty orderly, untie his wings, still letting him hang at the same place that he did.

This old bird's food must be hemp-seed, bread, and a few white oats, for he takes great delight in husking the oats; and when he begins to sing, give him once a week a hard egg, or shred him a little boiled mutton, or veal, or sheep's heart; but you must not give him, or any other bird, any salt meat, nor bread that is any thing salt.

SLABBERING-BIT. *See* MASTIGADOUR.

SLACK A LEG, is said of a horse, when he trips or stumbles.

SLACK THE HAND, is to slack the bridle, or give the horse head.

SLIMING, (in Falconry) a term used of a hawk, muting long-ways in an entire substance, without dropping any thing.

SLOT, (with Hunters) the view or print of a stag's foot in the ground.

SLOUGHT, (Hunting-term) a herd, or company of some sort of wild beasts, as a slought of bears.

SLOUTH-

SLOUTH-HOUND, } a dog so called in *Scotland*,
SLUTH-HOUND, } somewhat larger than a rache, and in colour, for the most part, brown or sandy, spotted.

These animals are endowed with so exquisite a sense of smelling, that they will follow the foot-steps of thieves, and pursue them with violence, till they overtake them; nay though a thief should take the water, they will follow him, and never be quiet, till they have got what they seek for; for it was a common custom in the borders of *England* and *Scotland*, where the people were used to live much upon theft, that if such a dog brought his leader to any house, where entrance was denied them, then they took it for granted, that both the stolen goods and the thief also, were therein.

SNAFFLE, after the *English* fashion, is a very slender bitt-mouth, without any branches: the *English* make much use of them, and scarce use any true bridles, but in the service of war.

SNAFFLE, OR SMALL-WATERING BITT, is commonly a scatch-mouth accounted, with two very little straight branches, and a curb, mounted with a head-stall, and two long reins of *Hungary* leather.

SNAILS may be prevented from injuring tulips and other bulbous roots, by covering them with frames four inches high, and grated so close with iron wire, that none of these vermin can get through to injure them. The method used by gardeners to catch snails, is to seek them out by break of day, or after rain, when they come out of their hiding-places to seek food. Snails are commonly found on wall-fruit, and in a dewy morning you may easily find where they chiefly resort; but the better way is to discover their haunts in a hard winter, where they may easily be destroyed. They generally are to be found in holes of walls, under thorns, behind close hedges, or old trees. You should be careful not to pluck the fruit they have begun to eat, for they will not begin a second until they have finished the first. If you set boards, bricks, or tiles, hollow against your pales, walls, *&c.* they will creep under them for shelter; where, about *Michaelmas*, they may be found, as in those places they get for security during the winter; *December* is the proper time to destroy them, as they may easily then be found as above.

SNAKES AND ADDERS. To drive them from the garden, plant wormwood in various parts of it, and they will not come near it.

Or, smoke the place with hartshorn, or lily roots, burnt in a fire-pan, and they will fly from the place.

Or, old shoes burnt, or other stinking stuff, will drive them away; or ash-tree boughs, while green leaves are on them, laid about your ground, will have the same effect.

Or, take a handful of onions, and ten river crab fish, beat them well together, and lay it in the place where they come, and you may kill many of them together.

SNAP. Snap-angling is with two large hooks tied back to back, and one smaller to fix your bait on. Your tackle must be very strong, and your line not quite so long as your rod, with a large cork float, leaded enough to make it swim upright. Your bait must not be above four inches long. As soon as ever you perceive the cork to be drawn under water, strike very strongly without giving the fish time, otherwise he will throw the bait out of his mouth. When you find he is hooked, master him as soon as you can, and with your landing-net under him get him out of the water. Some prefer a double spring hook, and put the bait on by thrusting the wire into the middle of its side, and through its mouth, sewing up the mouth afterwards. *See* ANGLING.

SNARE; a trap or gin to catch beasts, birds, *&c.* among fishermen, a wire-gin, stall-net, or wile.

SNET, (Hunting-term) the fat of all sorts of deer.

SNIGGLING, OR BROGGLING FOR EELS, is another remarkable method of taking them, and is only to be practised on a warm day when the waters are low. This requires a strong line of silk, and a small hook baited with a lob-worm. Put the line into the cleft of a stick, about a foot and a half from the bait, and then thrust it into such holes and places before-mentioned, where he is supposed to lurk; and if there be one there, it is great odds but he takes your bait. Some put that part of the line next the hook into the cleft; but however that be, it must be so contrived, that the line may be disengaged from the stick, without checking the eel when he takes the bait. When he has swallowed it, he is not to be drawn out hastily, but after he is pretty well tired with pulling, and then you will make him more secure.

N. B. When you broggle under a bridge with a boat, take care it does not strike against the bridge, nor disturb the water; either of which will drive them into their holes so far, that they will scarcely ever bite. The best and largest eels are caught in the *Mersey* by this method.

SNIPES; in order to take snipes, take a large number of birchen twigs, as fifty or sixty, or more, at your pleasure, and lime them very well together.

Having done this, go in search after such places where snipes do usually frequent, which may be known by their dung.

They will lie very thick in those places, where the water lies open in hard, frosty, or snowy weather; and having taken notice of the place where they mostly feed, set what number of twigs you please, at a yard distance one from another, and set them sloping, some one way, and some another; then retire to a convenient distance from the place, and you will find there will be scarce one snipe in ten will miss the lime twigs, by reason that they spread their wings, and fetch a round close to the ground, before they alight.

When you see any taken, do not stir at first, for he will feed with the twigs under his wings, and as others come over the place, he will be a means to entice them down to him.

When you see the coast clear, and that there are not many that are not taken, you may then take them up, fastening one or two of them, that the others flying over, may alight at the same place.

If there be any other open place, near to that where you have planted your twigs, you must beat them up: the reason why they delight to haunt open places, and where

where springs run with a gentle stream, is because they cannot feed, by reason of their bills, in places that are hard and stony, and about these plashes in snowy weather they very much resort.

SNORT; is a certain sound, that a horse, full of fire, breathes through his nostrils, and sounds as if he had a mind to expel something that is in his nose, and hindered him from taking breath.

The noise, or sound, is performed by the means of a cartilage within the nostrils.

Horses of much mettle snort when you offer to hold them in.

To SOAR; to fly high as some birds do.

SOAR-AGE, (in Falconry) a term used of hawks, to signify the first year of their age.

SOAR-HAWK; is a hawk so called from the first taking her from the eyrie, till she has mewed, or cast her feathers: these, as well as the branches, are to be diligently taught, and the falconer must bring them off from their ill custom of carrying, by giving them large trains, by which means they will learn to abide on the quarry. *See the Article* SPARROW-HAWK.

So-ho
s.v. Trail

SOILING THE HORSE; without possibility of dispute, is a consideration of the first magnitude. To feed, lie, and roam at large, upon the grass of the earth, and to have his body constantly wetted with the dew of heaven, is the natural state of the horse, in which, by consequence, he must enjoy a superior portion of health and happiness, and without an occasional recurrence to which, he can only possess a partial and imperfect share of either. We shall, therefore, in place of argument, appeal to men's constant experience, and without hesitation, lay it down as a rule, that in order to cool and re-invigorate the limbs, and purify the blood and juices of horses, and to enable them to endure to their latest period, it is absolutely necessary that they be allowed an annual run, of at least six weeks at spring grass. Where horses cannot be spared from the stable, the usual substitute in town, is to soil them at home upon green tares; this, at least, surely never need be omitted, being within the reach of almost every keeper of horses. We will barely repeat the old caution, to give the green meat fresh, because if kept till its juices be exhaled, it not only becomes useless as to the original intent, but tough and indigestible, and apt to occasion dangerous obstructions.

Natural grass, Mr. LAWRENCE says, is superior, and more likely to answer the intended purpose of stable soiling, than tares or any other herbage; from repeated trials it has been found, that horses and horned cattle prefer it to all other green meat, without even excepting the so often and highly celebrated lucern. The great bulk of the artificial grasses is an important object, but no doubt can be entertained of the superior quality of the natural, either green or dry. When the vast consequence of grass is considered, both in relation to quantity and quality, the neglected state of our meadows and pasture lands, in many parts of the country, may well be wondered at, and the question naturally asked, why the simple herbage should not be cultivated with the same care and assiduity as corn: it has been known to repay immensely the expence of manure, of pure and good seed brought from a considerable distance, and of the most attentive culture. There cannot be a more improvident practice, whether in a public or private view, than withholding so tenaciously old, foul, unproductive meadow from the plough; the breaking up of which would pay so abundantly in the first instance, and still more largely in the succeeding grass crops. It is obvious nothing more is needed, in this case, than to adopt improved methods of laying down to grass.

Previous to turning a horse to grass, it has been the custom with some to call in the assistance of medicine; we know of no necessity for such steps, with the exception indeed, that if the horse should be excessive plethoric, or full of blood, dull and heavy-eyed, it would be highly proper to bleed him a few days before his departure: the eyes of horses, in such state of body, are in great danger while feeding abroad. Abridge his clothing, and accustom him to the cold by degrees; and if you turn him into the pasture upon the approach of night, according to the advice of Mr. MARSHALL, it will be an additional security against catching cold; since the charms of his new situation will induce him to rove about, until the morning sun shall have prepared him a warm and dry couch, on which he may repose in safety.

If the feet be too strong and deep, take down the crust with discretion, that the frog may come fairly in contact with the earth. The proper grass shoes are narrow tips, just wide and long enough to cover the crust, and prevent its being broken, and the inspection of the farrier is necessary, at least once a month, to replace in case of wear or accident, and to prevent the too great length of the toe; in very dry seasons, and hard pastures, and where horses are much driven by the flies, their feet will demand constant attention, or they may come up with the crust so splintered and damaged, as scarcely to afford sufficient hold for a shoe. If a servant be sent to inspect horses at grass, and there should be a necessity for employing a country blacksmith, care should be taken to restrain him from his favourite operation upon the frog, the binders, or the sole.

The grass of the salt-marshes is universally celebrated for its alterative and restorative qualities; it powerfully provokes the different secretions at first, until having become habitual to the constitution, it nourishes in the same degree: the farriers say, it will cure every malady of the horse except rottenness; and these doctors imitate their betters, who when they have ineffectually exhausted their whole art upon a patient, always send him to *Bath*. Those pastures within reach of the *London* manure, are deemed insalubrious on that account, as being forced and rank; the gramineous product of low, fenny soils, is also sour, and defective in nourishment; sweet, herbaceous, upland grass having in all accounts, the preference for horses: hilly pastures are preferable, and in a still higher degree for foals.

In our fortunate climate, so free of dangerous extremes, a horse may run all the summer in defiance of heat or insects, and will be much better in health than he could possibly be kept in the stable; but if only the usual

usual period of soiling be allowed him, that is to say, a month or two, no doubt but every one would choose to have it early, whilst the grass is young, and the heat moderate; choice should also be made of pastures well shaded, and well watered.

Cutting grass, and carting it to the stable, is an immense saving upon a farm, greater, indeed, than could be conceived, until repeated by experience, the quantity of dung also raised by that means is an important consideration; but the attendant inconvenience is the keeping horses shut up in a hot and unwholesome stable, at the very season when lying abroad is so natural and beneficial to them; in truth, poor animals, it is a trespass upon their health and their feelings, it is abridging the too scanty reward of their never-ending labours.

Every body knows that there are salt-marshes, a few miles to the eastward of the metropolis, where horses are received; and, I believe, intelligence thereupon is usually to be obtained at one of the inns in *Smithfield*. As to the other places of reception for grazing horses around *London*, the different parks applied to that purpose are to be preferred, on account of the security, good attendance, range, and shade. The merits of *Bushey* and *Kempton Parks* as excellent feeding grounds, whence they never fail to return full of firm good flesh.

A winter's run at grass, from the astrictive effect of cold upon the animal fibre, is justly held the most natural and efficacious method of recovering the tone of the sinews in over-worked horses; it is farther much to be preferred, as well on the score of expence as of health, to standing unexercised, and useless in the stable: the only question is, how to carry this measure into effect, with judgment.

Small indeed is the advantage, in any point of view, of the common shilling and eighteen penny methods, of turning a horse off to starve all the winter upon straw; for the benefit which may be supposed to be derived to his limbs, will perhaps be fully counter-balanced by the impoverishment of his blood, and the consequent ruin of his condition; and when taken up with his distended carcase, long coat, and bare bones, half a summer had need be spent in bringing him to decent order, either for use or sale: the spring grass is the best remedy to repair the waste of a winter so spent, and even then his flesh will melt in work like butter. To be wintered abroad to any salutary purpose, a horse must have plenty of good hay, and sufficient shelter by night or day, against the inclement extremes of the season, in a dry hovel, or warm straw-yard; but if to this should be superadded a moderate daily allowance of corn, such a method would be the most powerful restorative, of which the nature of the horse is susceptible. Certain of the hardy, common-bred, thick-hided horses, will endure the utmost rigours of the winter unsheltered, and make a tolerable subsistence upon the faint and unsubstantial herbage of the season; but even these would be better by all the cost, for more liberal keeping; others will make a shift barely to exist under such harsh treatment, and a random view of this leads inconsiderate people, who have a general idea of the benefits of a winter's run, to commit the barbarous folly of exposing emaciated and thin-skinned horses; perhaps just taken from a hot stable, upon open heaths or marshes, where they are literally tortured to death by the cold; dying by inches, under all the horrors of an intermittent. Nature shrinks from extremes, and expands herself to the moderate and gradual application only, of the most proper remedies. Experience fully proves, that all the domestic animals of northern climates should be sheltered by night, during the winter season.

SOLDIER'S OINTMENT; a medicine for a horse that is shoulder-splaited, which you may prepare after the following manner: Take twelve ounces of fresh bay-leaves, ten ounces of rue, four ounces of mint; sage, wormwood, rosemary, and basil, of each two ounces: five pounds of olive oil, one pound of yellow wax, and half a pound of *Malaga* wine; bruise all the leaves, and boil the whole to the consistence of an ointment, and keep it for use.

SOLE OF A HORSE, is a sort of a horn, that is much tenderer than the other horn that encompasses the foot, and by reason of its hardness, is properly called the horn or hoof.

TO TAKE OUT THE SOLE, is to do it without touching the horn of the hoof, for if you take off the horn, you make a hoof cast.

The sole is taken out for several infirmities, and a horse that has been unsoled, will recover in a month's time.

The sole ought to be thick and strong, and the whole lower part of the foot, where the shoe is placed, hollow; when a shoe is right set, it should not at all rest upon the sole, and but very seldom touch it.

CROWNED SOLE, is when the foot is shaped like the back part of an oyster-shell, and the sole higher than the hoof; so that the whole foot is quite filled up on the lower part.

HIGH SOLED; a horse is said to be so, whose sole is round underneath, so that it is higher than the hoof, which oftentimes makes a horse halt, and hinders the shoeing of him, unless the shoe be vaulted.

The shoe of a horse ought to be so set upon the hoof, as not to bear upon the sole; for otherwise the sole would be hurt, and not only make the horse lame, but corrupt the flesh that separates it from the coffin bone.

SORE (with Hunters) a male deer from four years old.

SORING (with Sportsmen) the footing of a hare in open fields; for then the huntsmen say she sores.

SORRANCES; maladies incident to horses, and are accounted twofold, as either an evil state or composition of a horse's body, which is to be discerned either by the shape, number, quantity or sight of the member diseased; or it is the loosening and division of an unity, which as it may change diversely, so it has divers names accordingly; for if such a loosening and division be in the bone, then it is called a fracture, if in any fleshy part, a wound or ulcer; if in the veins, a rupture; if in the sinews, a convulsion or cramp; if in the skin, an excoriation. *For the cure, see* WATER *for* SORRANCES.

SORREL; is a reddish colour, with which the mane

mane ought to be red or white: it is diſtinguiſhed according to the degrees of its deepneſs, into a burnt ſorrel; and a bright or light ſorrel; but, generally ſpeaking, it is the ſign of a good horſe.

SOUND; a horſe is ſuch, that does not halt.

When a jockey ſells a horſe, he warrants him ſound, hot or cold; that is, that he does not halt, neither when you mount him, nor when he is heated, nor yet after alighting, when he ſtands and cools. *See* WARRANTRY.

SOUND, } (with Hunters) a term uſed for an
SOUNDER, } herd, or company of wild hogs, boars, or ſwine.

SOURIS, is a cartilage in the noſtrils of a horſe, by the means of which he ſnorts. *See* SNORT.

SPADE; a gelded beaſt, alſo a deer of three years old.

SPANIEL; there are two ſorts of dogs which neceſſarily ſerve for fowling; the firſt findeth the game on the land, and the other on the water. *See* WATER-SPANIEL, DOG, *&c.*

Such ſpaniels as delight on the land, play their parts either by ſwiftneſs of foot, or by often queſting to ſearch out and to ſpring the bird for further hope of reward, or elſe by ſome ſecret ſign and privy token diſcover the place where they fall.

The firſt kind of ſuch ſerve the hawk, the ſecond the net or train.

The firſt kind have no peculiar names aſſigned them, except they are named after the bird, which by natural appointment he is allotted to take; upon which account ſome are called dogs for the falcon, the pheaſant, the partridge, and the like: they are commonly called by one name, *viz.* ſpaniels, as if they originally came from *Spain*.

The ſpaniel requiſite for fowling on the water partly by natural inclination, and partly by diligent teaching, is properly called a water-ſpaniel, becauſe he has uſual recourſe to the water, where all his game lies, namely, water-fowl, which are taken by their help in their kind.

His ſize is ſomewhat large, but not extraordinary, having long, rough, and curled hair, which muſt be clipt at proper times, for by leſſening the ſuperfluity of his hair, they become more light and ſwift, and are leſs hindered in ſwimming.

The principal game of theſe dogs are ducks and drakes, whence he is called a duck-dog, or dog for a duck, becauſe his excellency lies in that ſport. *See* WORMS *in* DOGS *how to cure*.

The Diſtemper of Spaniels.

The mange is a capital enemy to the quiet and beauty of good ſpaniels, which not only torments them, but frequently affects others.

For the cure: take a pound of barrow-ſlick, three ounces of common oil, four ounces of brimſtone well powdered, two ounces of ſalt well powdered, and the ſame quantity of wood-aſhes well ſifted and ſearſed; boil all theſe in a kettle, or earthen pot, and when they are all well incorporated together, anoint the ſpaniel therewith three times every other day, either in the ſun, or before the fire; then waſh him all over with good ſtrong lye, and this will kill the mange.

But do not forget to ſhift his litter and kennel often.

If the ſpaniel loſes his hair, as it often happens, then bathe him in the water of lupines and hops, and anoint him with ſtale and barrow-ſlick.

This ointment, beſides the cure, will make his ſkin look ſleek and beautiful, and kills the fleas, that are diſquieters of dogs, and enemies to their eaſe.

If this be not ſtrong enough to root out this malady, then take two quarts of ſtrong vinegar, common oil ſix ounces, brimſtone three ounces, ſoot ſix ounces, two handfuls of ſalt pounded, and ſifted fine; boil all theſe together in the vinegar, and anoint the dog as before directed.

But this medicine muſt not be uſed in cold weather; for it may then endanger the dog's life.

But if the ſpaniel be not extremely afflicted with the mange, then he may be eaſily cured as follows:

Make bread with wheaten bran, with the roots, leaves, and fruit of agrimony well pounded in a mortar, and made into a paſte or dough, and then baked in an oven; give this to the dog, and let him have no other bread for ſome time, letting him eat as much and as long as you will.

The formica is alſo a ſcurvy malady, which very much affects a ſpaniel's ears, and is cauſed by flies, and their own ſcratching with their feet.

In order to the cure, infuſe gum tragacanth four ounces, in the ſtrongeſt vinegar you can get, for the ſpace of a week, and afterwards grind it on a marble ſtone, as painters do their colours, adding to it roche-alum, and galls reduced to powder, of each two ounces; mingle all theſe together, and lay them on the part affected.

For a Swelling in the Throat of Spaniels.

By reaſon of a humour diſtilling from the brain, the throat of a ſpaniel will often ſwell unreaſonably.

In order to a cure, anoint the part aggrieved with oil of chamomile, then waſh it with vinegar, mixed with ſalt, but not too ſtrong.

To help a Spaniel that has loſt his Senſe of Smelling.

Spaniels do ſometimes loſe their ſenſe of ſmelling, by reaſon of reſt and greaſe, ſo that they will not be able to ſpring or retrieve a fowl after their uſual manner.

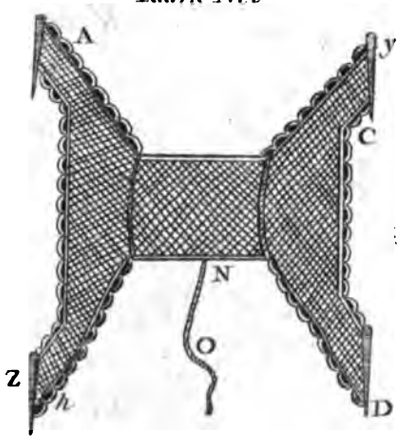
In order to recover it again, take agaric two drachms, ſal gemma one ſcruple, beat theſe into powder, and mix them well with oxymel, making a pill as big as a nut, cover it with butter, and give it the dog either by fair means or ſoul.

This will bring him to a quick ſcent, as has been often experienced.

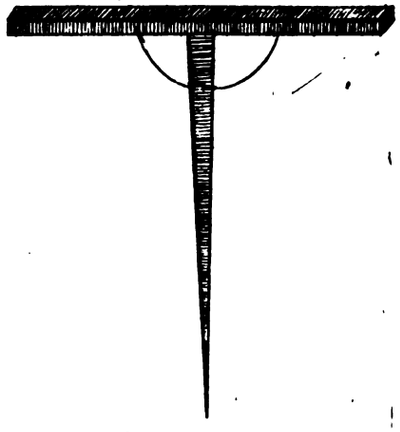
The Benefit of cutting of the Tip of the Spaniel's Tail or Stern.

It is neceſſary that this be done when he is a whelp, for

Raffle Net



Sparrow Net



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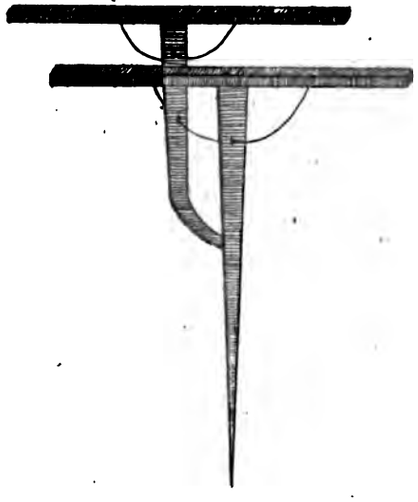
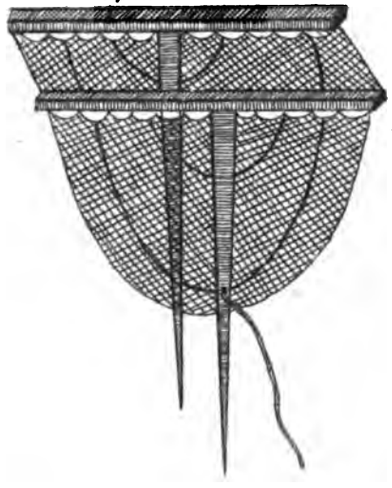


Sparrow Net



for several reasons: first, by so doing worms are prevented from breeding there; and in the next place, if it be not cut he will be less forward in pressing hastily into the coverts after his game, and besides it will make the dog appear more beautiful.

To SPARE A COCK, in the general, signifies to breathe him.

SPARING, (with Cock-fighters) a term used to signify the fighting of a cock with another to breathe him, in which fights they put hots on their spurs, that they may not hurt one another.

SPARROW, a small bird, dwelling in houses, and frequenting barn doors and the like places for food; but upon the gathering in of the corn-harvest, they retire into the fields for their sustenance, and if any thing remote from their usual places of abode, will in the night take up their lodgings or roost in the neighbouring hedges, and when no more food is left, or that it grows scanty in the fields, they return to their former habitations: there are many devices found out to catch sparrows, and among the rest, that called the sparrow-net is used after sun-set and before sun-rising, being the time when these birds are at roost. *See* Plate XIII.

The sparrow-net is thus made; first have a long pole, much like a hawk's pole, and there must be fastened strongly at the upper end, either with one, two, or more grains, a small square cross piece of wood, like unto the head of an ordinary hay-rake, but much larger for length and size, and of a little longer square, according to the figure. *See* the Plate.

Then take another staff like unto this, but not above one-third in length, and join it to the longest with a strong cord, so loosely that it may fall at pleasure to and fro from the longer cross-staff, and when both the cross-staves meet together, they may be both of equal length and height, and join together without any difference, for otherwise they will prove ineffectual. *See the form of the second cross-staff.*

The two cross-staves being joined in this manner, fit to meet together, fix both to the one and the other a large and wide purse-net, having this liberty at the top, that the cross-staves may fall, and part the one from the other a pretty distance; and the lower end of the net must be straight and narrow, and made fast to the same hole in the lower cross-staff, to which the shorter cross-staff before was fastened: then take two small cords or lines, which must be fastened with knots to each of the shorter cross-staves, passing through the two holes, and so through the holes of the lower cross-staff, through which they may go and come at pleasure, and then must the two ends of the wards be tied on a knot together, at such an even distance, that the shorter staff may fall at pleasure from the lower as far as convenient, or the wideness of the net permits; and then another single ward being made fast to the last knot of the two cords, (which single ward always carry in your right hand) draw the cross-staves close together, and close up the net as you find occasion; and make with it the staves and net to fly open and widen, as the place requires where you are about to set it: for the form and manner of the sparrow-nets as fixed together, *see* the Plate.

This sparrow-net is to be used early in the morning or late at night, as already noted, and must be set or fixed against the eaves of houses, barns, dove-houses, and such like places; as also against stacks of corn or hay; and if they were thatched it would be better; and being set close against them to knock and thrust the cross-staves close against the same, making a noise to force them to fly out into the net, and immediately draw the long single line and shut up the cross-staves close, and so take the birds out.

HEDGE-SPARROW; this is not so despicable a bird as some imagine, for if you will mind its song, you will find very delightful notes; and it sings early in the spring with great variety.

Old or young become tame very quickly, and will sing in a short time after they are taken, if they have been taken at the latter end of *January*, or beginning of *February:* they will feed almost on any thing you can give them.

They commonly build in a white thorn, or private hedge, laying eggs much different from other birds, being of a very fine blue colour.

This bird is tractable, and will take any bird's song almost, if taken out of the nest.

SPARROW-HAWKS are of several kinds, and of different plumes.

SPAVIN, a disease among horses, which is a swelling or stiffness in the hams, causing them to halt, and is called the blood-spavin, that is, a soft swelling growing through the hoof of a horse, commonly full of blood, and is bigger on the inside, being fed by the master-vein, which makes it larger than the swelling on the outside.

It runs on the inside of the hoof down to the pastern.

This malady proceeds from a corruption of the blood, caused by hard riding when the hoof is young and tender, which by over-heating it, renders it thin and flexible, so that the humour descending, lodges in the hoof, makes the joint stiff, and causes the horse to go with great pain and difficulty.

As soon as you perceive the tumour, bathe it with hot vinegar, and apply a tight bandage round the part; and this method will in general be sufficient to reduce the vein to its original size, and consequently to cure the disease. But if this method should not succeed, you must make an incision in the skin, lay the vein bare, and tie it both above and below the swelling by means of a needle and waxed thread. When you have performed the operation, dress the part daily with a composition of turpentine, honey, and spirits of wine. By this means the turgid part will digest away, together with the ligatures, and the cure be compleated. Or,

First shave the hair away on both sides of the swelling, as far as it goes, then take up the thigh vein, and bleed it well; when that is done, the vein above the orifice, and let it bleed as much as it will; then make two incisions in the lower part of the swelling, as far as it goes, and after that prick two or three holes in each side

side of the hoof where the ſpavin is, that ſo the medicine may take the better effect; and when the blood and water have evacuated as much as they will do, having beaten together bole ammoniac and the whites of eggs, bind the part about with them plaiſter-wiſe, upon linen cloth, and make it faſt about the hoof, to keep on the plaiſter; the day following take it off, and bathe the ſore place with the following:

Boil mallow tops and nettles in water till they are ſoft, and with this bathe the ſore; then having boiled together a ſufficient quantity of mallow roots, branck urſine, oil, wax, and white wine, bind this warm on the ſore, round about the hoof, and ſew a cloth round it, and let it lie on three days more, and every morning ſtroke it down gently with your hand, that the bloody humour may iſſue out, and the fourth day bathe and waſh it clean with the former bath.

Then take gum creana and ſtone pitch, of each an ounce, and brimſtone a quarter of an ounce, pound them to a very fine powder, and melt them all together on the fire; and juſt before you take them off, add half an ounce of *Venice* turpentine, and having made a plaiſter, ſpread it upon leather and lay it warm to the place, and round about the hoof, letting it remain till it fall off of itſelf; but if it happens to come off too ſoon, clap on another of the ſame.

This is eſteemed to be the beſt method of cure for this malady.

When this ſwelling appears on the inward part of the hoof, the method is to take up the thigh-vein, and to bleed it from the nether part of the leg till it will bleed no longer, and after to give fire to the ſpavin both long-ways and croſs-ways, and then to apply a reſtringent charge to the part.

Bog SPAVIN; the very nature of the tumour called the bog ſpavin, points out the moſt proper method of cure; for as it is filled with a gelatinous matter, it is neceſſary to remove it before we can hope for a cure. Let therefore the tumour be opened by inciſion, and the gelatinous matter diſcharged. When this is performed, let the wound be dreſſed with doſſils dipped in oil of turpentine, and once in three or four days a powder compoſed of calcined vitriol, alum, and bole, be put into it. By purſuing this method, the bag will ſlough away, and the cure be completed without leaving any ſcar. If through the pain attending the operation or dreſſings, the joint ſhould ſwell or inflame, it muſt be fomented twice a day, and a poultice applied over the dreſſings till it be reduced.

Bone SPAVIN, a malady to which horſes are incident; it is a great cruſt as hard as a bone, which, if let run too long, will ſtick, or rather grow on the inſides of the hoof, under the joint, near the great vein, and will cauſe the horſe to halt very much.

It comes at the firſt like a tender griſtle, which arrives by degrees to this hardneſs, and may be cauſed ſeveral ways, either by immoderate riding or hard labour, which diſſolving the blood into thin humours, it falls down and lodges in the hoof, cauſing it firſt to ſwell, and afterwards to grow as hard as a bone; ſometimes it is hereditary, either from the ſire or the dam.

Bliſtering and firing are the only remedies that can be relied on in this diſorder. And when a fulneſs on the fore part of the hock comes on after hard riding, or any other violence, which threatens a ſpavin, the part ſhould be bathed with coolers and repellers. In young horſes milder medicines ſhould be applied, as they will in a ſhort time wear the tumour down by degrees; this will be much better, than to remove it at once by more ſevere methods, which too often have a very bad effect on young creatures, and produce worſe conſequences than thoſe they were intended to remove.

But in full-grown horſes bliſtering is abſolutely neceſſary; and accordingly various authors have given preſcriptions for compounding a medicine that will anſwer the intention. I ſhall not, however, enumerate them here, as the bliſtering ointment, with the addition of one drachm of ſublimate, is the beſt yet known, and has often been uſed with the greateſt ſucceſs.

When bliſtering is uſed, the following ointment and method are well adapted to ſucceed.

Bliſtering Ointment.

Take of the ſtronger blue ointment, three ounces; of *Flanders* oil of bays, one ounce; cantharides, three drachms; ſublimate, one drachm; mix them well together. Or,

Take cantharides, euphorbium, and ſublimate, of each one drachm; *Flanders* oil of bays, one ounce; mixed.

Before it is applied the hair muſt be cut off as cloſe as poſſible, and then the ointment laid on very thick over the affected part. It will be proper to make this application in the morning, and keep the creature tied up during the whole day without any litter; but at night he muſt be littered, and ſuffered to lie down; when, in order to prevent the ointment being rubbed off, a pitch plaiſter ſhould be laid over it, and a bandage of broad tape applied upon it to keep all faſt and firm.

After the bliſter has done running, and the ſcabs begin to dry and peel off, it ſhould be applied a ſecond time, in the very ſame manner as before; for this ſecond application will often have a much greater effect than the firſt; and in colts and young horſes generally completes the cure.

But when the ſpavin has been of long ſtanding, it will require to be often renewed, perhaps five or ſix times. It will, however, be neceſſary to obſerve, that after the ſecond application, a greater interval of time muſt be allowed, becauſe it will otherwiſe have a ſcar, or at leaſt a baldneſs in the part; therefore, once a fortnight, or three weeks, is often enough to renew the application, which will remove all blemiſhes of that kind, and at the ſame time procure the ſucceſs deſired.

In full-aged horſes the ſpavins are generally more obſtinate, as being ſeated more internally; and when they run among the ſinuoſities of the joint, they are commonly incurable, as they are then beyond the reach

reach of medicine, and become of an impenetrable hardness.

Violent caustic medicines are generally made use of to cure these cases; but it is a dangerous practice, and often destroys the limb. The only method is to try the blistering ointment, continuing according to the directions already given for some months, if necessary: the horse being worked moderately in the intervals: by this means the hardness will be dissolved by degrees, and wear away in an insensible manner.

Sometimes the spavin lies very deep, and penetrates a considerable way into the hollow of the joint. When this is the case, it will be in vain to expect success from the medicines already prescribed. The most violent caustic ointments prepared with sublimate, are the only preparations that can succeed, and these are so dangerous, that a careful practitioner would not chuse to use them. Perhaps a proper cautery made in the form of a fleam, may, by a dextrous hand, be applied to the spavin in such a manner, as not to injure either the tendons or nerves; by this means the substance of the swelling will be penetrated, and the running may be easily continued by the help of the precipitate ointment. This method is safe, and therefore worth trying; as horses of great value are often, by this disease, rendered unserviceable.

In desperate cases, the following has been used; take up the veins that feed it, as well below as above, and give it fire; then charge the place with pitch made hot, and clap flax upon it; after four days anoint it with oil of populeon and fresh butter, melted together over a gentle fire; and when the scar is fallen off, apply blanco, or a white stuff made of jessoes, continuing to use this till it is healed.

Cleanse elecampane root very well, wrap it up in a paper, and roast it till it is soft, then gall, rub, and chafe it well, put it on and bind it hard, but not so hot as to scald off the hair; this will take it away at twice dressing.

Mix twopenny-worth of oil of turpentine, and as much oil of chamomile together in a glass vial, and anoint the part aggrieved with it, and it will do.

Make a slit of the length of a barley-corn, or longer, with a knife, upon the top of the excrescence, and raise the skin from the bone with a fine cornet, hollowing it round the excrescence, and no more; then having some lint dipped in oil of origanum, thrust it into the hole, cover the knob, and let it lie till you see it rot, and that nature hath cast forth both the medicine and the core.

Put an ounce of common pepper powdered, and as much roche-alum, into a pint of anniseed-water, and boil them together till one half is consumed, then strain and pour it into a glass for use. Apply this to the part once or twice as there is occasion.

There is also the ox-spavin, which is a callous and grisly swelling, hard as a bone, and so painful that it makes a horse lose his belly; some horses halt with it only at first coming out of the stable, when those tumours are but young: a spavin at its rise is larger towards the ply and bending of the ham than behind it, and by degrees it increases so far, that it will at length make the horse quite lame.

The dry spavin, which may be perceived by the most unskilful; for when a horse in walking, with a twitch lifts one of his hind legs higher than the other, he is said to have this kind of spavin, and will often be affected with it in both legs.

These frequently degenerate into ox-spavins; and there is no cure for them but applying the fire; even that does not always effect the cure.

Mr. Lawrence, in treating of the bog spavin, says, cast the horse, and let a person press the wind-galls, which appear between the bones on the outside of the hock, to render the bladder more tense and palpable for the operator. Keep clear of the vein, and cut boldly and deeply into the tumour. Apply the corrosive, and secure it by introducing dossils of lint tied with a thread, and dipped in oil of turpentine. A little *Armenian* bole may be mixed with the powder, which ought to be used once in three days. Heal with a common digestive. If a swelling of the joint ensue, foment.

Ossets, splents, spavins, distortions, curb, thorough-pin, and ring-bone, are bony excrescences, differently situated, but all originate in the same proximate cause, an extravasation of the cement, mucilage, or oil of the joints, which gradually condenses and becomes ossified. When completely ossified they are incurable; but probably, a radical operation, judiciously performed, might succeed. The owners of all young horses should constantly watch the parts whence these excrescences put forth, and take them in hand instantly, when success need not be doubted; since the matter not being firmly condensed, its absorption might be promoted by repellents, and it might be compulsively returned again into the refluent blood. Watch any invisible lameness or pain, as there is always an uneasiness in the parts, previous to an exostosis. Rub hard three times a day, twenty minutes each time, with a piece of *Brazil* wood, or any smooth substance. Rub in goose-grease, and the most active discutients, camphorated spirits, with sal ammoniac, and a little distilled vinegar, but no preparations of lead. Puncture. Blister a number of times. Brisk mercurial physic.

Supposing the real existence of a varix, repel and bandage; if that will not succeed, tie the vein, a crooked needle and waxed thread being passed under it, both above and below the swelling, which must be suffered to digest away with the ligatures; dress with turpentine, honey, and spirit of wine.

Gibson records a successful operation upon a confirmed bone-spavin. Both he and Osmer improved upon the method of the old farriers, in this case; though these last, according to Markham, used sometimes to dissect and lay bare the spavin, which they then chipped off with a fine chissel, a quarter of an inch broad, keeping clear of vein and sinews: then dressed with verdigris and nerve oil; in three days, washed with vinegar; plaister of pitch, rosin, and turpentine; healed in seven days.

The spavin, in Gibson's case, was deeply seated in the hock of a hunter. He first applied as strong a

caustic as he dared venture, for fear of hurting the tendons and ligaments, but ineffectually; when judging rightly that his hand possessed an elective power which the caustic had not, he determined on the cautery. The irons were made in the shape of a fleam, but not pointed; rounded on the face, and thick towards the back. Some small blood-vessels were divided, and a pretty large effusion of blood ensued, to which a styptic was applied. The wound, half an inch deep, and an inch long, with two or three short lines on each side, was dressed with tow until the third day, that the hemorrhage might be fully stopped. Several days a gleet of viscid water; great pain, inflammation, and swelling of the hock. Fomentations—First dressings, turpentine on tow; afterwards, with finely-ground precipitate, two drachms to one ounce of turpentine. Plentiful discharge of thin glutinous matter, for two months, before the skin began to close and cover the wound, when the matter became laudable. Walking exercise. The precipitate which entered into the nervous parts, supposed of great benefit. Physicked during the cure. Sore healed in three months, and the hair grew, except a small spot, over which a defensive plaister. Hunted same season, and ever afterwards perfectly sound.

Distortions, or luxations of the bones of the hock. By a wrench or strain, sometimes the small bones are jarred and displaced. The swelling generally appears on the middle and forepart of the hock. Extreme stiffness and inaptitude to motion. If possible, force the bone into its place, filling up the fore part of the hock with tow, and the cavities on each side, and also all the other cavities and vacancies, applying a piece of pasteboard, soaked in vinegar, over the distortion, and binding the whole with a broad soft roller or list. Six months run at grass.

In firing a ring bone, use a thinner instrument than common, drawing the lines barely a quarter of an inch distant, and crossing them obliquely like a chain. Mild blister, afterwards *Burgundy* pitch plaister. This, however, is known not to succeed. As to drawing the sole, it is perfectly useless; and the operation, as described by SOLLEYSEL, with the introduction of the red-hot knife, is dreadful to think of.

Jardons, hough-bony, or capped hocks. Indurated tumours, to be treated in the beginning, like initient spavins and splents; when confirmed, they are nearly as difficult to remove.

String-halt, although incurable, may and ought to be treated with palliative remedies, which will prevent its progress to the last stage, when the complaint becomes exceeding unsightly, and considerably diminishes the value of the horse. Loose stable, and as much running abroad as possible. After a hard day's work, a warm bath for both hinder legs, up to the hocks, as long as the water continues warm; rub bone-dry with linen cloths. Repeat in the morning. If very bad, comfortable fomentations. Anoint the back-sinews, and about the hocks, with a liniment made of goose-grease and spirit doubly camphorated, well rubbed in.

SPAYARD, } (with Hunters) a red male deer that
SPAID, - } is three years old.

SPEAR; the feather of a horse, called the strake of a spear, is a mark in the neck, or near the shoulder of some barbs; and some *Turkey* and *Spanish* horses represent the blow or cut of a spear in those places, with some appearance of a scar as it were.

This feather is an infallible sign of a good horse.

SPEAR-HAND, OR SWORD-HAND, of a horseman, is his right-hand.

SPEAR-FOOT OF A HORSE, is his far foot behind.

~~SPRIT~~ NET, OR CARALET, a device wherewith great fish as well as small may be taken, which is also known by other names; this is a common sort of net, and made according to the figure in Plate III.

The meshes of this net must be pretty large, that you may the more easily lift it out of the water, or else great fish will be sure to leap over it: you must also do thus; take a needle and thread, which draw through the sides of your common earth-worms, but in such a manner as not to hurt them much, to the end that they may move their heads and tails with strength and vigour, that the fish at the sight of them may imagine they are at liberty; then tying both ends of the thread together, hang it at Q, just over the middle of the net, within eight inches of the bottom; you must also have a long pole, as O, P, N, and within a foot of the smaller end fasten two cross sticks of the net, in such a manner that they may hang about two inches loose from the pole, that so the net may play the better. When you put the net into the water, make a little dashing noise therewith, for the fish are very eager after such novelties, and coming to see what the matter is, will perceive the rolling of the worms: then they will chase after the smaller fish, and each at his side begins to pull for the worms: you may know there are great ones, and good store of them by their tugging and pulling the net, upon which the great end of the pole must be clapped between your legs, and a sudden mount with both the hands be given to the net, and you may be sure of all within the compass of it: in holding the net, it seems to be most for your ease to let the end rest between your legs, with both hands a little extended on the pole, for the better supporting it; and let it sometimes be suffered to lie flat on the ground, as the place will permit. *See* Plate III.

SPITTER, (with Hunters) a male deer near two years old, whose horns begin to grow up sharp and spitwise; the same is also called a brocket, or pricket.

SPLEEN IN HORSES, a disease, cured as follows: boil a handful of agrimony in the water which the horse is to drink mornings and evenings, chopping the leaves small when they are boiled, and then mix them well with fresh butter, to be made into balls, of which give the horse two or three at a time, in the manner of pills, with a horn of old strong beer after each pill.

SPLENTS; a disease in horses, which is a callous, hard, insensible swelling, or hard gristle, breeding on the shank bone, which when it grows big spoils the shape of the leg, and generally comes upon the inside; and if there be one opposite to it on the outside, is called a peg, or pinned splent, because it does, as it were, pierce the bone, and is extremely dangerous.

They seldom appear after a horse is past six or seven years

years of age: few colts are without more or less of them, but generally they disappear as strength increases; though an instance now and then occurs, in which all means to remove them are unsuccessful.

The simple splents are only fastened to the bone, at a pretty distance from the knee, and without touching the back sinew, and have not any very bad consequence; but those that touch the back sinew, or are spread on the knee, will make a horse lame in a short time.

Horses are also subject to have fuzes in the same place, which are two splents joined by the ends, one above the other, and are more dangerous than a simple splent.

For the cure of this malady, shave away the hair, and rub and beat the swelling with the handle of a shoeing hammer; then having burnt three or four hazle sticks, while the sap is in them, chase the splent with the juice, or water, that issues out at both ends, applying it as hot you can, without scalding the part; after that rub or bruise the swelling with one of the sticks, and continue frequently to throw the hot juice upon the part, but so as not to scald it, and continue still rubbing it, till it grows soft.

Then dip a linen cloth, five or six times double, in the hazle juice, as hot as your hands can endure it, and tie it upon the splent, where let it remain for twenty-four hours, keeping the horse in the stable for the space of nine days, not suffering him to be either ridden or led to water; by which time the splent will be dissolved and the hair will afterwards grow on it again.

If the hazle be not in full sap it will not operate so effectually, nevertheless it may be used; but then the part must be rubbed and bruised more strongly. If the splent be not quite taken away, but only diminished, repeat this operation a month after.

Another remedy, that is an approved one, is the ointment of beetles; in *April* or *May*, you may find a little black, longish insect, about the foot of the stalk of the bulbous crow-foot. It is no bigger than a small bean, having legs, but no wings, and so hard, that you can with difficulty bruise it with your fingers.

Take three or four hundred of these, and mix them with hog's grease in a pot, cover it very close, till they are quite dead, and then stamp them to an ointment with grease, which, the longer it is kept, the better it will be.

Then first you are to soften and prick the splent, after the usual manner, and apply this ointment to it, of the thickness of a halfpenny, causing it to sink in, by holding a hot fire-shovel against it: this will draw out a red water, which will turn to a scurf or scab, in about nine or ten days, and afterwards fall off. But before you apply this ointment, you must soften the callous, or hard swelling, with a poultice made of two ounces of lily-roots, the same quantity of marsh-mallows; of the leaves of mallow and violets, two handfuls; one handful of dill, of wild marjorum, wild penny-royal, or corn-mint.

Boil the roots in water for about an hour, and mix the water with about three parts of oil; then put the herbs to it, and when they are well boiled, stamp all to mash, shave off the hair, and apply it warm to the part.

SPLINT, a malady incident to horses; this is very much like the splent, though some authors take it to be different from that disease.

This begins at the very gristle, and will, if it be let alone too long, become as hard as a bone, growing either bigger or smaller, according to the cause from which it proceeds.

It is found, for the most part, on the inside of the shank, between the knee and the fetlock joint, and is very hard to be cured; it is so painful to a horse, that it will not only cause him to halt, trip, and stumble, but also to fall in his travelling.

This malady is occasioned by too hard travelling, and much labour, or by his being over-loaded, which offends the tender sinews of his legs; though some horses are affected with it hereditarily, from their sire or dam's being troubled with it.

It may be known both by the sight and feeling, for if it is pinched with the thumb or finger, the horse will shrink up his leg.

For the cure: first wash the place, and shave off the hair, as is done in splents, and bony excretions; knock and rub it with a blood-staff, or hazle-stick, and then prick it with a fleam; and having pounded together vervain and salt, of each a handful, to an ointment, apply it to the place, binding it up with a roller, and sewing it fast on, where let it lie for twenty-four hours.

Another method of cure is, to dip a stick or feather into a glass of oil of vitriol, and touch the place with it, and it will eat it away; but if it happens to eat too much, put a stop to it, by bathing the part with cold water, or you may wash it with green copperas, boiled in water, which will not only cleanse it from any piece of the remaining splent, but also heal it up.

In order to take away the splent, so as to leave no scar behind it, take a red hazle stick, about the bigness of one's thumb, about a quarter of a yard long, and first knock the splent very well with it, cut one end of it very smooth, and stick a needle in the pith of it, leaving out just so much of the point, as will prick through the skin; with this prick the skin of the part full of holes, and then rub it all over with oil of petre, bathing it in with a hot fire-shovel, for four or five days successively.

You may here take notice, that the falling down of new humours may be stopped by binding plaisters, as pitch, rosin, mastich, red-lead, oil, bole ammoniac, and the like.

Then to draw out such matter as is gathered, you may make use of drawing simples, as wax, turpentine, *&c.* and lastly, to dry up the remainder, use drying powder, as lime, oyster-shells, soot, *&c.*

But remember that all splints, spavins, and knobs, ought to be taken away at their first beginning.

SPRAIN, } (in Horses) a misfortune which is the
STRAIN, } extension or stretching of the sinews beyond their strength, by reason of a slip or wrench.

Strains in horses are frequently called claps: a strain

ſtrain is, when the fibre of a muſcle or a tendon are ſo ſtretched as, more or leſs, to loſe their natural elaſticity.

Plaiſters or bandages, where they can be applied, are the principal means of cure in theſe caſes: reſolvent and ſtrengthening applications have their uſe, but the common method of rubbing greaſy ſubſtances can do no ſervice, nor do they indeed do harm, any farther than, while they are uſed, other more proper methods are neglected.

If the ſtrain is freſh, and the horſe ſtrong and full of good blood, it may be neceſſary to take away ſome, to prevent inflammation: if the part be ſwelled, and a poultice can be conveniently applied, mix bran and vinegar, or bran and verjuice together, without boiling them, into a poultice, and apply it cold, renewing it twice a day at the leaſt. If poultice and bandage cannot be applied, and the part is ſwelled and inflamed, dip flannel cloths in vinegar, or in two parts vinegar and one of ſpirits of wine, and ſtupe therewith, three or four times a day, for a quarter of an hour at a time.

If the ſwelling is not conſiderable, and the caſe a freſh one, waſh the part well with vinegar, and with ſpirits of wine, alternately; and when the ſwelling is wholly ſubſided, uſe opodeldoc in their ſtead.

After bathing the part well, if the ſituation will admit, let a ſtrong linen roller be applied pretty tight, but not ſo as to excite pain: let the roller begin a little below, and be continued a little above the affected part. If neither poultice nor bandage can be applied, more pains muſt be taken to rub the part well with vinegar, ſpirits of wine, or opodeldoc, as the preſent ſtate of the caſe may require.

Opodeldoc.

Take of camphire, three ounces; diſſolve it in rectified ſpirits of wine, half a pint; then add of the oil of origanum, two ounces; oil of turpentine, three pints; and *Venice* ſoap, thin ſliced, half a pound.

This opodeldoc may be uſed in caſe of bruiſes, numbneſs in any part, to diſperſe cold ſwellings, or it may be given inwardly, in caſe of gripes or wind from ſudden cold, ſtrangury, *&c.*

Strains in the thigh and the ſhoulder, require a long time to recover; the parts affected lie too deep to receive much advantage from external applications. In theſe caſes, the horſe ſhould immediately be turned to graſs, becauſe the gentle motion which he is led to by his own inclinations, ſuffices to prevent the joint from growing ſtiff; and more motion than he finds eaſy to himſelf would ſoon render him incurable. The advantage of reſt in theſe caſes is ſuperior to the united aſſiſtance of all other means; and a ſmall failure, by putting the horſe to exerciſe, which ſhould never be done before he is perfectly recovered, will overturn every other aſſiſtance that art can afford; ſo that care and patience, as to allowing reſt, cannot be too much enforced.

A ſtrain in the ſhoulder is called alſo a ſhoulder-wrench, a ſhoulder-pight, or a ſhoulder-ſplait. A freſh ſtrain in the ſhoulder is not difficult to diſcover; but a lameneſs there from any other cauſe, eſpecially from an afflux of humours, is not ſo eaſily diſtinguiſhed: very often, the diſeaſe affecting the whole breaſt, and the ſhoulders on both ſides, the horſe will ſtumble in going, or drop; however, uſually, it may be obſerved, that when a ſhoulder is ſtrained, to prevent the pain he does not put the leg of that ſhoulder forward; he ſets the foot of the ſound ſhoulder firmly on the ground, in order to ſave the other: when he ſtands in the ſtable, the foot of the lame ſhoulder is always advanced forward; if you trot him in hand, he brings the lame leg forward circularly, and not directly as the other; if you turn him ſhort on the lame ſide, he ſtill favours the foot of the lame ſhoulder, exerting himſelf with the other leg, and ſecuring himſelf on the ſound foot.

If the ſtrain has but juſt happened, or if it be of ſome days ſtanding, if the pain ſeem conſiderable, take away blood according to the age and the ſtrength. Bathe the whole ſhoulder well with vinegar or verjuice; after ſome days, if there ſeems to be no inflammation or ſwelling, rub it well, for a quarter of an hour every night and morning, with opodeldoc. But if the accident happened ſome time ago, and there is no ſign of inflammation, begin by rubbing the part well with opodeldoc.

When ſtrains happen to the whirl-bone and the hip, the horſe drags his leg after him; and when he trots he drops upon the heel: in this caſe, reſt is chiefly to be depended on. If the external muſcles only are hurt, the cure is eaſy, and admits of aſſiſtance from good rubbing with opodeldoc, in conjunction with reſt; but when the injured parts are ſuſpected to lie deeper, reſt alone is the beſt means.

When ſtrains happen in the hough, or in any part below it, medicines can be applied more immediately to the part, by conſequence much relief may be expected from ſuch means; reſt, the grand requiſite in all ſtrains, without exception, being indulged. If then the caſe is recent, begin with bleeding, if the inflammation requires it, and then proceed to bathe the part well with vinegar, or if any ſwelling appears, apply the poultice of bran and vinegar above mentioned. When the inflammation and ſwelling diſappears, or if the accident hath happened ſeveral days ſince, and there is neither of theſe ſymptoms, begin by rubbing the opodeldoc well on the part.

Sometimes after ſtrains in this part, there remains hard ſwellings on its outſide, which are beſt removed by bliſters, repeated as directed for the bone-ſpavin: theſe ſwellings remaining on the inſide they are rarely cured, except by firing.

The knee-pan is called the ſtifle-bone; the ligaments that ſpread over it, are ſometimes ſo relaxed by ſtrains, that it may very eaſily be moved about; and when, from accidents of this ſort, a horſe is lame, the common expreſſion is, he is ſtifled. Some are of opinion that this bone is diſlocated; but that cannot be without dividing the broad ligaments. Lameneſs in the ſtifle-bone is known by the horſe treading on his toe, not being able to ſet his heel to the ground. If the accident hath juſt happened, rub the part well with equal parts

parts of vinegar and spirit of wine, two or three times a-day, and apply a roller as tight as is convenient, without stopping the circulation or giving pain; but if a puffy swelling appear, use some discutient fomentation to disperse it, and finish by rubbing with opodeldoc, not forgetting rest, which should never be omitted, nor bandage, which should always be applied where it can. The knees are subject to strains from blows; in which case, the directions above given will be proper here.

The pasterns too are sometimes strained by external violences, and are, in general, to be treated as before directed; but if they continue very weak, after such means being duly used, let him run somewhat longer at grass, and if this fail the part must be fired.

Strains in the back-sinews are very frequent, and are as easily known by their swelling; and when the horse stands, his setting the lame leg always before the other. If the case is recent, bleed in the fetlock-vein, afterwards rub the sinew well with vinegar; or, if much swelled, apply the poultice of bran and vinegar; and when the swelling is nearly gone, rub it with opodeldoc twice a-day: keep a tight stocking on, for it is, if well fitted, preferable to any bandage. The tight stocking on, (which should be made of strong cloth that will not easily stretch) is useful in any case, where a considerable relaxation is either a cause or a consequence, as in the grease, *&c.* But sometimes when the back-sinews have repeatedly suffered in this respect, their relaxation is so great, as not to admit of relief, but by firing, and farther rest at grass.

When the coffin-joint is strained, it soon becomes so stiff that the horse can only step on his toe, and the joint cannot be moved: in this case blistering must first be made use of, as directed in the bone-spavin, and repeat it until the joint is free, then fire: the horse all this time running at grass.

Rowelling is sometimes useful in gross bodied horses, when the swelling hath been pretty considerable. Some bore the shoulder with a hot iron, and after that blow it up; but the operation is equally foolish and cruel, for it may aggravate the disease, but cannot contribute to its relief. The practice of some in pegging the sound foot, or applying a patten-shoe, with a view to bring the lame foot on the stretch, is highly to be condemned, as it can only be useful in cases of an opposite nature, *i. e.* where the contraction of the muscles require their being stretched, and not farther to stretch the too feeble and relaxed. To conclude, let it be remembered in all cases of strains, that the chief service is to be expected from rest, and that particularly at grass; or if that cannot be obtained, let the horse be where he can walk about at his own pleasure: thus will the relaxed tendons best recover their elastic force, and the voluntary motions of the horse will prevent the synovia of the joint, or other causes, from obstructing so as to render it immoveable.

Those in the back are cured in the following manner:

If it be newly done, take a quart of grounds of ale or beer, a large handful of parsley, and grass chopped; boil them together till the herbs are soft, then add a quarter of a pound of sweet butter; when it is melted take it off the fire, and put it into white wine vinegar, and if it be thin, thicken it with wheat bran, and lay it upon hurds, poultice-wise, as hot as the horse can bear it; remove it once in twelve hours, and give the horse a moderate exercise.

Others take five quarts of ale and a quarter of a peck of glovers specks, and boil them till it comes to a quart, and then apply it hot to the grief, and remove it not in five days.

Some beat *Venice* turpentine and brandy together, into a salve, and with it anoint the grieved part, and heat it with a fire-shovel, and in two or three days doing it will have a good effect.

For a SPRAIN IN THE SHOULDER, or elsewhere; that is either hid or apparent: take ten ounces of prewgrease, melt it on the fire, and put to it four ounces of oil of spike, and one of the oil of origanum, one and an half of the oil of *Exeter*, and three of that of *St. John's* wort; stir them all together, and put them into a gallipot, with which (being made hot) anoint the place, rubbing and chafing it in very well, holding a hot fire-shovel before it; do this every other day, rubbing and chafing it in twice a-day, and give the horse moderate exercise.

For SPRAINS IN THE LOINS OR COUPLINGS, BRACKEN advises the following charge; pitch and rosin, each four ounces; turpentine, three ounces. Mix. Pour it upon the parts warm, and cover the fillets all over with tow or hurds. A strengthening embrocation should be also poured upon, and soaked into the parts twice a day; and after all, if the affair be serious or of long standing, no in-door measures will succeed. If only a slight strain, no labour of any kind, during the cure.

For a SPRAIN IN THE PASTERN-JOINT, OR FETLOCK-JOINT; make a poultice of the grounds of strong beer, hen's-dung, hog's grease, and nerve-oil, boiled together, and applied two or three times, bound in a rag.

For an old SPRAIN ON THE LEG; clip the hair off so close that you may see the pastern-joint, then strike it with your fleam, and let it bleed well, then having shaken oil of turpentine, and strong ale or beer, very well together in a glass, anoint the grieved part very well with it, chafing it in, with a hot fire shovel held before it; and when you find that the swelling is abated, lay the common charge of soap and brandy upon it, and wet a linen rag in the same, and bind about it, and when the charge begins to peel off anoint it once or twice with the oil of trotters. *See more under* STRAIN.

SPREAD-NET, } a partridge-net, which may be
DRAG-NET, } made with four square meshes; see it described in the plate XIV. No. 3.

It is made of three pieces, the greatest, A B F G, must be six feet long, and four broad; the other two, P Q I H, and K L X Y, four feet long, and one broad; let the grand beginning of them be fastened at the letter Q, and then from Q R, to the end G; leave as much length or space as the small net is broad, which is a foot: its length terminates at the point R, from whence

whence begin to ſew the two pieces Q and R, together, and ſo get the letters P S, leaving alſo an equal length of the great net from S to B, to that from Q to G; ſew the other piece X Y, over-againſt Y T, in the ſame manner.

When you have joined the nets together, get four ſtakes the form of which is repreſented at C E N; let them be eighteen inches long, and a finger thick, with a notch at the end N, in order to faſten them at each corner, as R, S, T, U, where the nets are joined together; each of theſe ſtakes muſt have a little hole bored in them, within half a foot of the end C, that you may put in the buckle or ring E, made of iron or copper, aud resembling the rings of bed-curtains.

Then take a pretty ſtrong packthread, the end of which you muſt thruſt into the ring of the ſtake to be tied to the corner of the net Q, R, and from thence to the corner of the ſmall net, thruſting it through all the meſhes of the edge, and bringing it out at the meſh I, and then put it through the ring of the ſtake, at the corner P, S, and from thence into the meſh, at the corner of the ſmall net B, and ſo quite about to the laſt corner G, and finally into the ring with the other end; let each of theſe two ends hang four or five feet in length, and then tie them together, as at M.

The following figure repreſents the drag-net, ſpread in order to catch partridges. No. 2.

But you ſhould firſt, a little before ſun-ſet go into ſome field, or place where you think to find ſome ſport, and there hide yourſelf, and you may ſoon know if there be any partridges, by their calling and jucking, and then they will take a ſmall flight, and ſometimes two or three before they go to rooſt; and be ſure to obſerve exactly the place where they rooſt, by making ſome mark at a diſtance, to the end that you may not have to ſeek the place in the dark; then prepare two ſtraight light poles, which muſt be as long as the net is broad, which, to do well, ſhould be about fifteen or twenty fathoms or more: they muſt be as ſtrong at one end as the other, they need not be all of one piece, but of two or three well joined; take your net, poles, and companion, with you to the place, for the ſport cannot well be performed without an aſſiſtant.

Now the figure above, more particularly repreſents a piece of corn, where partridges have been diſcovered; the ridges are denoted by the pricked lines, and the ground between the ridges, is the ſpace you find between theſe pricked lines; and laſtly, the letter R is the place where the partridges are ſuppoſed to ſtop.

The net muſt be ſpread upon the ground by two men, in a place where there are neither buſhes nor other incumbrances, to entangle it, and hinder the effects of it; then faſtening the poles A, D, and B, C, to each end, they fix the net all along to the places marked, by the ſmall ends of the thread, as in the figure; then they put packthreads into the bottom of the net, which they faſten all along the edge, at the places O, P, Q. Theſe packthreads ought to be about two feet and a half, or three feet long, with ſmall buſhes at the other end, to trail on the ground, that the partridges may be forced to ſpring, when they hear the ruſtling noiſe; and it may here be particularly noted, that the red partridges are not ſo forward to ſpring, as the grey ones.

When the net is extended, each perſon muſt take hold of the middle of the poles, lifting up the higher end of the net, about five or ſix feet from the ground, and ſetting the lower part to follow ſloping about half a foot from the ground, upon which nothing muſt drag but the three ſmall branches O, P, Q; the cord and the buſhes muſt drag on the ground, and ſhould not be above two feet long; when the partridges riſe, both muſt let go their hands, and let the net fall on the ground upon them.

Sometimes it ſo happens, that the partridges riſe before the net is over them, which may be occaſioned by the too great noiſe you make; therefore be as ſtill as poſſible, and if ſo, let them reſt two or three hours, before you attempt any thing again, then march over the whole field with your net ready ſet, and it is a great chance but you meet them at laſt.

This ſport muſt not be followed either when the moon ſhines, or when it ſnows; ſome carry a light, or ſome fire with them, the better to diſcover the partridges: which when they ſee, they take it to be daylight, and are diſcovered by the noiſe they make in waking, and ſtretching out their wings; then they hide the light, and draw the net over them.

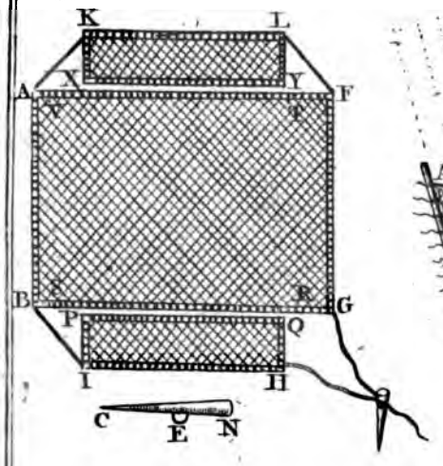
In order to carry ſuch a light, they faſten the bottom of a corn-buſhel, or the like, to the breaſt, and the mouth thereof being turned towards the partridges, they place a tin lamp, made on purpoſe, in the bottom thereof, with a wick or match, as big as a man's little finger, ſo that the light can only be ſeen right forward, and not ſideways. Other inventions there are, and more may be found out, to carry lights for this purpoſe, with which I ſhall not amuſe the reader: that perſon who has a mind to take a covey of partridges alone by himſelf, muſt prepare two poles, made of a willow, or ſome other wood both ſtraight and light, bigger at one end than at the other, and about twelve or fifteen feet long, to which he is to faſten his net, as may be ſeen by the figure, No. 1.

The poles muſt be faſtened along the ſides Q, S, and T, R, with packthreads, in ſuch a manner that their thickeſt ends may be at S, T, the narroweſt part of the net; which ſpread-net being adjuſted, let the ſportſman go into the field, and obſerving where the partridges are, let him carry the net in ſuch a manner, that the edge S, T, being againſt his belly, the ends of the poles, S, and T, rub againſt his ſides: and extending his arms, let him, with both his hands lay hold on the two poles as far as he can, to the end that preſſing the cord S, T, againſt his belly, he may have the more ſtrength; then holding up the net four, five, or ſix feet from the ground, let him walk along the ſide of the corn-field, and let the edge of the net Q, R, trail on the ground, on the right and left, without quitting it, if no partridges are found under it; but if any, let him drop the poles and net, and haſte to catch the game.

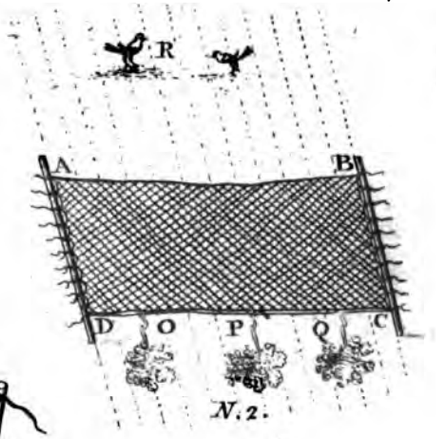
To SPRING PARTRIDGES OR PHEASANTS, is to raiſe them.

SPRINGS. Certain devices for the taking of fowls and birds, both great and ſmall; they are uſually made and

N.3. Spread Net

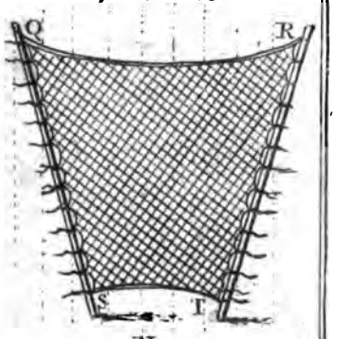


Spread Net



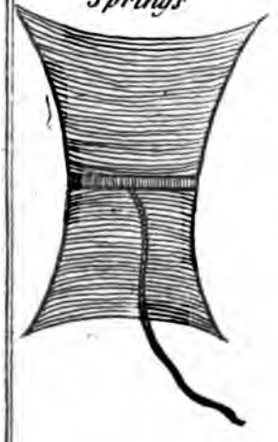
N.2.

Spread Net



N.1.

Springs



Springs

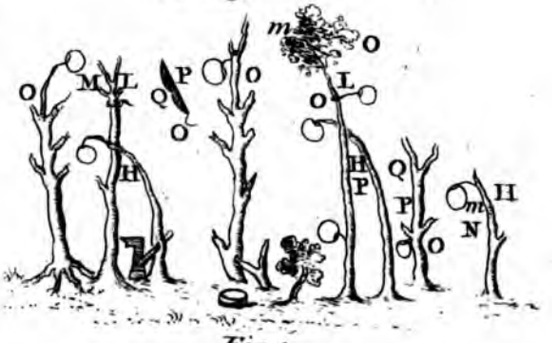


Fig. 4.

Springs

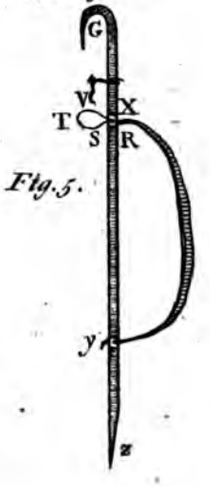


Fig. 5.

and accommodated thus: first, knowing well the fowls and the places where the flocks and couples do usually feed mornings and evenings, and observing well the water-tracts, where they usually stalk and paddle for worms, flat-grass, roots, and such like things, on which they feed; be sure to take notice where several furrows or water-drains meet in one, and after a small course divide themselves again into other parts, or branches, this middle part being the deepest, and, as it were, feeding the rest; and also observe which is most paddled, and fittest for them to wade in; for such are the most likely places for your purpose. Then take small and short sticks, and stick them cross-wise, overthwart all the other passages, one stick within about half an inch of each other, making, as it were a kind of fence, to guard every way, except one, through which you would have the fowl to pass.

This being done, take a good stiff stick, cut flat on each side, and pricking both ends into the water, cause the upper part of the flat side of the stick to touch the water, and no more; then make a bow of a small hazle or willow, in the form of a pear, broad and round at one end, and narrow at the other, and at least a foot long, and five or six inches wide, and at the narrow end a little nick or dent; then take a good stiff young plant of hazle, elm, or withy, being bushy grown, and without knots. three or four inches about at the bottom, and about an inch at top, and having made the bottom end sharp, fasten at the top a very strong loop, of about a hundred horse hairs, plaited very fast together with strong packthread, and made smooth and pliable, to slip and run at pleasure, and this loop should be of the just quantity of the hoop, made pear-wise, as before-mentioned; then hard by this loop, with strong horse-hair, within an inch and a half of the end of the plant, fasten a little broad, but thin tricker, made sharp and equal at both ends, after the following proportion described in the first figure.

And then the bigger sharp end of the plant being thrust and fixed into the ground, close by the edge of the water, the smallest end with the loop and the tricker should be brought down to the first bridge; and the hoop made pearwise being laid upon the bridge, one end of the tricker should be set upon the nick of the hoop, and the other end against the nick made on the small end of the plate, which by the violence and bend of the plant, will make them stick and hold together until the hoop be moved: this done, the loop must be laid on the hoop in such a fashion as the hoop is proportioned; then from each side of the hoop prick little sticks as aforesaid, as it were making an impaled pathway to the hoop, and as you go farther and farther from the hoop or spring, so shall you widen the way, that the fowl may be entered a good way in before they perceive the fence, the first entrance being about the width of an indifferent furrow, so that any fowl falling, they may be enticed to go and wade upon the same, where they shall no sooner touch the spring with their heads, feet, or feathers, but they shall be caught; and according to the strength of the plant, you may catch any fowl, great or small.

For the taking smaller fowl with this engine, as the snipe, woodcock, pewit, or the like, that use to feed in wet and marshy grounds, and amongst water-furrows or rillings, sucking from thence the fatness of the soil, the device or engine is the same, without any alteration, except that it may be of much less strength and substance, according to the fowl it is set for, especially the sweeper or main plant, which, as before ordered, is to be of elm, hazle, or withy, and so in this case may be of willow, sallow, or strong grown osier, or any other yielding plant that will bend and recover its straightness again: this kind of engine is only for the winter season, when much wet is on the ground; but if there happens many great frosts, so that you are deprived of the advantage of the waters, then find out where those standing waters have any descent or small passages, so as by the swift current the water is not frozen, and there set your springs, and the greater is the frost, the more apt they are to be taken.

Now to take birds and fowls on trees, boughs or hedges, with such or the like device, after you have observed any such to which birds resort, as in the figure you see represented, then chuse any branch thereof; for example: *See* Plate XIV. Fig. 4.

The letter O, which is tall and straight, cut off all the little twigs that grow about it, from the bottom until you come within four or five feet at the top, then pierce a hole through the said branch with a wimble, at the letter H, which must be about the bigness of a goose quill; then chuse out another twig, about four feet distant from the former, as marked N, and pare away all the little branches; and at the end L, tie a small packthread, half a foot long, at which tie one of the running bows of horse-hair, finely twisted, as the letter M: you may also have a little stick P, O, four fingers long, with a little hook at the end O, and the other end round pointed; stoop down your branch or twig N, to which your horse-hair collar is fastened, and pass the collar through the hole H, and draw it until the knot M be likewise drawn through; then fasten very gently the end of the small stick P in the hole H, which must be so neatly done as only to stop, and no more, the drawing of the branch N; then spread abroad the collar upon your little stick P, O, and tie some bait, either of green pears, cherries, wheat, worms, or the like, according to the nature of the birds for which you set your device, at the letter Q, so that no birds can come to touch them unless he sets his foot on the small stick, which will presently fall, and so give way to the knot M, then follows the branch or twig N, and the bird remains snapt by the legs.

The description and the figures are so plain, that a mistake cannot well be made; however, here is the form of three of them, two ready bent, one before and the other behind, and the third unbent, that you may observe all the several pieces. *See* Fig. 4. Plate XIV.

Another way of taking fowls or birds by springs, such as blackbirds, thrushes, partridges, pheasants, or the like, is described by the following figure, which

may be placed according to the game designed to be taken, either on the ground, or one a tree, bush, hedge, or the like. *See* Fig. 5. Plate XIV.

Take a stick of sallow, or willow, five or six feet long, straight and smooth, about the bigness of an ordinary walking cane, as R, Z, sharpened at the end Z; and at the end R fasten or tie a small wooden crook, as the letter G, then make a little hole at Y, about the bigness of a swan's quill, and another hole half as big at V, then take any stick, which, being bent, will spring back again and become straight, as holly, or the like, let it be about three feet long, and thrust the great end of it into the hole *o*, *p*; tie a small packthread at the other end, with a collar of horse-hair, which draw through the hole V, and stop it here, by pegging it very gently with a small stick T, so that it may only keep it from flying back, and no more; then open your running collar of horse-hair, as at S, and spread it over the little stick T; then tie at the letter R the bait you intend to use, and let it hang down within three, four, or five inches of the small stick T, according to the bigness of the bird for which it is set.

SPUNGE OF A HORSE-SHOE, is the extremity or point of the shoe that answers to the horse's heel, upon which the calkins are made.

SPUR, a piece of metal, consisting of two branches encompassing a horseman's heel, and a rowel in form of a star, advancing out behind, to prick the horse.

SQUIRREL, is larger in compass than a weasel, but the weasel is longer than the squirrel; the back parts and all the body is reddish, except the belly, which is white.

In *Helvetia* they are black and branded, and are hunted at the fall of the leaf, when the trees are naked, for they run and leap from bough to bough with a surprizing agility, and when the trees are clothed with leaves they cannot be so well seen.

They are of three colours, in the first age black, in the second, of a rusty iron colour, and when they grow old they are full of white hoary hairs.

Their teeth are like the teeth of mice, having the two under teeth very long and sharp.

Their tail is always as big as their body, and it lies continually on their back when they sleep or sit still, and it seems to have been given them for a covering.

In the summer-time they build their nests (which some call drays) in the tops of the trees, very artificially, with sticks, moss, and other things which the wood affords, and fill it with nuts for their winter provisions; and like the *Aspine* mouse, they sleep most part of the winter very soundly, so that they do not awake though you beat at the outside of their drays.

When they leap from tree to tree they use their tail instead of wings, leaping to a great distance, and are borne up without any sinking, in appearance; nay, they will frequently leap from a very high tree down to the ground, and receive no harm.

To hunt this little animal many persons ought to go together, and carry dogs with them; and the fittest place for the exercise of this sport, is in little and small slender woods, such as may be shaken by the hand.

Bows are necessary to remove them when they rest in the twists of trees, for they will not be much terrified with all the hallooing you make, unless they are now and then hit by one means or another.

They seem to be sensible what a defence a high oak is to them, and how securely they can lodge there from men and dogs; wherefore since it is too troublesome to climb every tree, you must, instead of that labour, use bows and bolts, that when the squirrel rests you may presently give him a thump by an arrow; the shooter need not fear doing them much harm, except he hit them on the head, for by reason of a strong back-bone, and fleshy parts, they will bear as great a stroke as a dog.

If they be driven to the ground from the trees, and so creep into hedges, it is a sign that they are tired; and such is the lofty spirit of this animal, that while her strength lasts her, she will save herself in the tops of high trees, but being tired, descends and falls into the mouths of those yelping curs that persecute her.

If what is reported of them be true, the admirable cunning of the squirrel appears in her swimming or passing over a river; for when she is constrained by hunger so to do, she seeks out some rind or small bark of a tree, which she sets upon the water, and then goes into it, and holding up her tail like a sail, lets the wind drive her to the other side, and carries meat in her mouth, to prevent being famished by the length of the voyage.

STABLE; as to the situation of a stable it should be in a good air, and upon hard, firm, and dry ground, that in the winter the horse may come and go clean in and out; and, if it may be, it will be best if it be situated upon an ascent, that the urine, foul water, or any wet, may be conveyed away by trenches or sinks cut out for that purpose.

By no means let there be any hen-roosts, hog-sties, or houses of easement, or any other filthy smell near it, for hen-dung or feathers swallowed, oftentimes proves mortal, and the ill air of a jakes sometimes causes blindness; and the smell of swine is apt to breed the farcin; and there is no animal that delights more in cleanliness, nor is more offended at unwholesome savours than a horse.

Brick is better for building stables than stone, the latter being subject to sweating in wet weather, and the dampness and moisture causes rheums and catarrhs.

Let the wall be of a good convenient thickness, at least a brick and a half, or two bricks thick, both for the sake of safety and warmth in winter, and to defend him from being annoyed with the heat in summer, which would hinder his digesting his food.

It will be proper to have windows both on the east and on the north sides, that he may have the benefit of the

the north air in ſummer, and of the morning ſun from the eaſt in winter.

Let the windows be glazed, and if they be ſaſhed it will not only be the handſomer, but will be more convenient to let in air at pleaſure: and let there be wooden ſhutters, that you may darken the ſtable in the middle of the day, which will incline the horſe to take his reſt as well in the day as in the night.

That part of the floor on which the horſe is to ſtand ſhould be made of oaken planks, for they will be both eaſier and warmer for the horſe to lie upon than ſtones; and be ſure to lay them level, for if they are laid higher before than behind (as they generally are in inns and horſe-courſers ſtables, that their horſes may appear to more advantage in ſtature) his hinder legs will ſwell, and he can never lie eaſily, becauſe his hinder parts will be ſtill ſlipping down.

Lay the planks croſs-way, and not length-ways, and ſink a good trench underneath them, which may receive the urine through holes bored in the planks, and convey it into ſome common receptacle.

Raiſe the ground behind him even with the planks, that he may continually ſtand upon a level; and let the floor behind him be paved with ſmall pebble; and be ſure to let that part of the ſtable where the rack ſtands be well wainſcotted.

Place two rings at each ſide of his ſtall for his halter to run through, which ſhould have a light wooden logger at the bottom of it, to poiſe it perpendicularly, but not ſo heavy as to tire the horſe, or to hinder him from eating.

Dr. Lawrence ſays, he has known ſtables, where mangers were not uſed, but inſtead thereof, drawers, which were pulled out, and put up, as the occaſion of feeding required; a cuſtom derived from *Italy*. Indeed there is this inconvenience attendant upon fixed racks and mangers, that they are always contaminated with the breath and ſlaver of the horſe, whoſe ſtomach is alſo palled by having his foul diſhes ever before him; and it would be better, both on account of room and cleanlineſs, did it not trench too much upon convenience in another reſpect, to have both racks and mangers moveable. The modern circular rack, placed in the corner or centre, is certainly an improvement of the old form, which extended quite acroſs the ſtall, and was commonly fixed externally from the head boards, the top of the ſtaves leaning forwards, from which poſition the horſe was conſtantly in danger of receiving the hay ſeeds in his eyes. Were a moveable rack required, the round one could eaſily be contrived to ſlide up to the hay-loft, and back again, as occaſion demanded. It is remarked by ſeveral of the ancient writers, that the racks are generally placed too high, which obliges horſes to an unnatural method of feeding, and by ſtraining the neck, occaſions many to become ewe-necked.

Some recommend a drawer or locker made in the wainſcot partition, rather than a fixt manger, for him to eat his corn out of, which may be taken out to cleanſe at pleaſure.

This need not be made large, and therefore will not take up much room.

They alſo adviſe not to make any rack at all, but inſtead of it (according to the *Italian* faſhion) to give the horſe his hay on the ground, upon the litter: or elſe you may, if you pleaſe, nail ſome boards in the form of a trough, in which you may put his hay, and the boards will prevent him from trampling on and ſpoiling it.

Some again diſapprove of this way of feeding, thinking it may ſpoil his cheſt, and that his blowing upon his hay will make it nauſeous to his palate: but others again anſwer, that as to the ſpoiling of the cheſt, it rather ſtrengthens it and makes it firm; whereas, on the contrary, the lifting of his head up high to the rack, will make him withy-cragged. But the way before mentioned, he will feed as he lies, which will be for his eaſe. And as to the hay, that may be given him but by ſmall quantities at a time; and there will be this advantage in receiving his hay on the ground, the prone poſture will cleanſe hie head from rheum or poſe, which he happens by any ways to have gotten, and induce him to ſneeze and to throw out all manner of watery humours that may annoy his head.

If you have ſtable-room enough you may make partitions, and at the head, towards the manger, board them to that height that one horſe may not moleſt or ſmell to another, allowing each horſe room enough to turn about, and lie down at pleaſure.

One of theſe ſtalls may be made convenient for your groom to lie in, in caſe of a match, or the ſickneſs of a horſe.

Behind the horſes may be made a range of preſſes, with pegs to hang up ſaddles, bridles, &c. and ſhelves for other utenſils, pots of ointment, &c.

And in order that the ſtable may not be encumbered with oat bins, you may make uſe of the method of a certain gentleman, deſcribed by Dr. Plott, in his hiſtory of *Oxfordſhire*, as follows:

Make a conveniency to let the oats down from above, out of a veſſel like the hopper of a mill, whence they fall into a ſquare pipe let into the wall, of about four inches diagonal, which comes down into a cupboard, alſo ſet into the wall, but with its end ſo near the bottom, that there ſhall never be above a gallon or ſuch a quantity in the cupboard at a time, which being taken away and given to the horſes, another gallon preſently ſucceeds, ſo that in the lower part of the ſtable, where the horſes ſtand, there is not an inch of room taken up for the whole proviſion of oats; which hath alſo this further conveniency, that by this motion the oats are kept conſtantly ſweet, the taking away of one gallon moving the whole maſs above, which otherwiſe being laid in great quantities, would be apt to grow muſty.

There alſo may be two of theſe made, the one for oats, and the other for ſplit beans, and both let into the range of preſſes, oats and beans being ſeparated above by partitions.

Let the floor over the ſtable be cieled, whether you make it a granary, or a lodging room for your groom,

groom, that no duſt may fall from it upon your horſes.

There are alſo other requiſites, as a dung-yard, a pump, a conduit; and if ſome pond or running river were near, it were the better.

Fumigation for Stables after any infectious Diſeaſe. Immerſe a tea-cup into a pipkin of heated ſand, put into the tea-cup half an ounce of concentrated vitrioliſc acid gently heated, and half an ounce of pure nitre in powder. Stir them together with a glaſs ſpatula, until a conſiderable degree of vapour ariſe.

To preſerve Steel from Ruſt. Boil an ounce or upwards of camphor, in a pound of lard, ſtir till cold. Scower off the ruſt or dirt, apply the ointment, and let it remain a few hours, or a day or two; then rub clean with a dry linen cloth. This gives a good poliſh to bits, ſtirrup irons, &c. and is proper for arms, ſtoves, and ſteel furniture about to be laid by: for the latter, black lead may be added. This is an old receipt from BURDON, but the beſt I have experienced.

STABLE-STAND (in the foreſt law) a term uſed when a man is found at his ſtand in the foreſt, with a croſs-bow or long bow, ready to ſhoot at a deer, or elſe ſtanding cloſe by a tree with greyhounds in a leaſh, ready to be let ſlip.

This is one of the four evidences, or preſumptions, by which a man is convicted of intending to ſteal the king's deer, the other three being back-berond, bloody-hand, and dog-draw.

STAG. A red male deer of five years old: a well-known beaſt of the foreſt. The ſtag, or hart, the female of which is called a hind, and the young a calf, differs, both in its magnitude and in the conformation of its horns, from the fallow-deer. The ſtag is by far the largeſt; and his horns are round; while thoſe of the fallow kind are broad and palmated. The firſt year, the ſtag has properly no horns, but only a kind of corneous excreſcence, ſhort, rough, and covered with a thin, hairy ſkin; the ſecond year, the horns are ſingle and ſtraight; the third year, they have two antlers; the fourth, three; the fifth, four; and the ſixth, five. The animal's age, however, cannot always be known with certainty by theſe indications, for ſometimes they are more, and frequently leſs. When arrived at the ſixth year, the antlers do not always increaſe; and, though the number may amount to ſix or ſeven on each ſide, the ſtag's age is then eſtimated rather from their ſize, and the thickneſs of the branch which ſuſtains them, than from their number. Theſe horns, notwithſtanding their magnitude, are ſhed annually, and ſucceeded by new ones.

When the old horns are ſhed, the new ones do not immediately begin to appear; but the bones of the ſkull are then inveſted only with a tranſparent perioſteum or ſkin; which, according to anatomiſts, covers the bones of all animals indiſcriminately. This ſkin, however, ſoon becomes tumid, and forms an excreſcence containing a conſiderable quantity of blood, and which gradually appears covered with a downy ſubſtance ſoft as velvet, and nearly of the ſame colour with the reſt of the animal's hair. This tumour daily protrudes from the point like the graft of a tree; and, riſing by degrees from the head, ſhoots out the antlers on each ſide; ſo that in a few days, according to the condition of the animal, the whole head is completed.

It is neceſſary to obſerve, that, if a ſtag be caſtrated when his horns are ſhed, they will never grow again; and, on the contrary, if the ſame operation be performed while the horns are in perfection, they will never fall off. If he be deprived of only one of his teſticles, he will be deſtitute of one horn on that ſide; and, if one of them is only tied up, he will want the horn on the oppoſite ſide. The quantity of his proviſions will alſo tend to facilitate the growth and expanſion of his horns. BUFFON aſſerts, that it is poſſible to ſtop their growth entirely by a conſiderable retrenchment of food; and, as a confirmation of this aſſertion, nothing can be more obvious than the difference between a ſtag bred in a fertile paſture and undiſturbed by the hunter, and one ill-fed and liable to perpetual alarm: the head of the former is expanded, his antlers are numerous, and the branches thick; whereas the latter has but few ramifications, the traces of the blood-veſſels on them are but ſlight, and their expanſion is very inconſiderable. The beauty and ſize of their horns, therefore, mark the ſtrength and vigour of the animal; for ſuch of them as are ſickly, or have been wounded, never protrude that magnificent profuſion ſo much admired in the deer-kind.

Stags no ſooner ſhed their horns, than they ſeparate from each other, and ſeek the champaign parts of the country, remote from all other animals, which their ſituation renders them unable to oppoſe. In this ſtate of imbecility they continue near three months, before their horns attain to their full growth and ſolidity; and then, by rubbing them againſt the branches of thickets, they at length clear them of that ſkin which had before contributed to their growth and nouriſhment. Soon after theſe animals are furniſhed with new horns, they begin to find the impreſſion of the rut, or the natural deſire of propagating their kind. The old ones are generally the moſt forward in this buſineſs; and, accordingly, about the end of *Auguſt*, or the beginning of *September*, they leave the thickets, and return to the plain in queſt of hinds, whom they court with a loud tremulous voice. At ſuch ſeaſons their necks become remarkably turgid; they appear very bold and furious; fly from one place to another; ſtrike with their horns againſt the trees, and every other oppoſing object; and continue reſtleſs and fierce, till they have found the females, who at firſt avoid them, but are at laſt overtaken and compelled.

After this manner the ſtag continues to range from mate to mate for about three weeks, the extent of the rutting-time; during which period, he ſcarcely either eats, ſleeps, or reſts, ſo that he becomes lean, feeble, and timid. Having performed this duty enjoined him by nature, he retires from the herd, in order to ſeek food and repoſe; he frequents the verge of his bounds; and ſelects the moſt nouriſhing paſtures, where he continues till his ſtrength is renovated.

The colour of the *Engliſh* ſtag is generally red, or a reddiſh

reddish brown, with some black about the face, and a black list down the hinder-part of the neck, and between the shoulders: nevertheless, in other countries, the greatest number of these animals are brown; a few of them indeed, are white, but such seem to be tinctured with a domestic breed. The stag has the most beautiful eye of any animal that is a native of this climate; and his senses of smelling and hearing are in no less perfection than that of vision.

When in the least alarmed, he lifts his head, erects his ears, and stands for a few moments as if in a listening posture. Whenever he ventures on some unknown ground, or quits his native covert, he makes a pause at the skirt of the plain, in order to examine every object around him: after which he turns his face against the wind, for the purpose of discovering by his scent the approach of any enemy. Should a person at some distance whistle, or call aloud, the stag immediately stops short in his slow-measured pace, and gazes on the intruder with a kind of aukward admiration; but, if the sagacious animal perceives neither dogs, nor any instruments of destruction levelled against him, he then proceeds forward without betraying the smallest emotion of fear. Man, indeed, is not the enemy he seems to be most apprehensive of; on the contrary, the sound of the shepherd's pipe seems to inspire him with pleasure; and, accordingly, the hunters sometimes make use of that instrument to allure the poor animal to his destruction.

The voice of this animal is stronger, louder, and more tremulous, in proportion as he advances in age; and, during the rutting season, it is very terrible. The cry of the hind, or female, is not so loud as that of the male, and is never excited but through apprehensions for the safety either of herself or her young; and, it may perhaps be unnecessary to add, that she is destitute of horns, and is more feeble and unfit for hunting than the male. As soon as she has conceived, she separates herself from the males, and all intercourse with each other is immediately suspended. The time of gestation generally continues between eight and nine months, and she seldom produces more than one at a time.

The usual season of parturition is about *May*, or the beginning of *June*, during which these creatures are very assiduous to conceal their young in the most obscure retreats. Nor is this a needless precaution, since almost every other animal then becomes their formidable enemy: the eagle, the falcon, the osprey, the wolf, and the dog, as well as all the rapacious animals of the cat kind, are at this period in continual motion for the discovery of their abodes. But, what appears extremely unnatural, the stag himself is also their avowed enemy; and the hind is also obliged to exert all her industry in order to conceal her young from him, as one of their most dangerous assailants. At this season, therefore, the courage of the male seems to be transferred to the female, for she defends her offspring against her less formidable opponents by force; and, when pursued by the hunter, even exposes herself to danger for the purpose of diverting his attention from those objects of her regard: she flies before the hounds in a direct course with amazing fleetness; and, if she is so fortunate as to escape with her life, she returns to her young after having eluded her pursuers.

The calf, for so the young of this animal is called, never quits the dam during the whole summer; and, in winter, the hind, together with all the males under a year old, assemble in herds, which are more or less numerous in proportion to the mildness or severity of the season. At the approach of spring, the season of gestation, they separate, none but those of the age of one year remaining associated. These animals are, in general, gregarious; and only danger or necessity can possibly divide them.

The jurisprudence of the *Roman* empire, which was accommodated to the manners of the first ages, established it as a law, that, as the natural right of such things as have no proprietor belongs to their first possessor, so all kinds of wild beasts, birds, and fishes, are the property of those individuals who can first catch them. But the northern barbarians, who over-ran the *Roman* empire, entertaining a strong relish for this rude amusement, and being now possessed of more easy means of subsistence from the lands they had conquered, their chiefs and leaders began to appropriate the sole right of hunting; and, instead of a natural right, they made it the privilege of royalty. When the *Saxon* kings, therefore, had established themselves into an heptarchy, the chases were reserved by each sovereign for his own particular diversion; the arts of war and hunting, in those uncivilized ages, constituted the only employments of the great; their active, but uncultivated minds, were susceptible of no pleasures but such as were of a violent kind, procured exercise for their bodies, and charmed away the languor of reflection. But, as the *Saxon* kings appropriated those lands only to the business of the chase which before lay waste, so no individual received any injury from the restraint.

The case, however, was totally altered when the *Norman* kings got possession of the throne; the passion for hunting was then carried to excess, and every civil right was involved in universal ruin. Even in a superstitious age, the ardour for hunting was stronger than the consideration of religion: the village communities, nay, even the most sacred edifices, were thrown down, and turned into one extensive waste, in order to make room for animals which were the objects of a tyrant's heedless pleasures; sanguinary laws were enacted for the preservation of the game; and, in the reigns of WILLIAM RUFUS and HENRY I. it was less criminal to commit murder than to destroy a beast of chase. This royal tyranny prevailed while the *Norman* line filled the throne; but when the *Saxon* line was restored unto HENRY II. the impolitic rigour of the forest laws was meliorated: the barons also, for a considerable time, imitated not only the encroachments, but also the amusements, of their monarchs; yet, when property began to be more equally distributed, through the introduction of arts and the progress of industry, these extensive hunting-grounds became more limited; and, as tillage and husbandry increased, beasts of chase were obliged to give way to those which mankind had taken more immediately under their protection.

In the present cultivated state of this country, stags are

are almost unknown in their wild natural condition; and such as remain among us, are kept under the name of red-deer, together with the fallow-deer; but they are considerably less numerous than formerly. Their excessive ferocity, during the rutting-season, and the coarseness of their flesh, have contributed in a great measure to their extermination.

The few that still remain in a wild state are found on the moors which border on *Cornwall* and *Devonshire*; in the highlands of *Scotland*; and, in *Ireland*, on the mountains of *Kerry*, where they essentially add to the magnificence and beauty of the scenery of the celebrated lake of *Killarney*.

Deer, fallow; these are smaller, less robust, and less savage, than those of the stag kind: they are seldom found wild in the forests, but are generally bred up in parks, and kept for the purposes of hunting or of luxury, their flesh being reckoned far superior to that of any other animal. Their horns are palmated at their ends, pointing a little forwards, and branched on the hinder side; there are two sharp and slender brow-antlers, and above them two small slender branches. The colour of this deer is various, reddish, deep brown, white, and spotted; and its tail is longer than that of the stag.

The fallow-deer and the stag resemble each other strongly: they are alike in form, alike in disposition, alike in the superb furniture of their heads, in their swiftness, and in their timidity; and yet no two animals avoid each other with more fixed animosity. They never engender together, or even herd together; they form distinct families, which, though seemingly near, are still greatly remote.

The fallow-deer is easily tamed, and feeds upon many articles which the stag refuses; by which means its venison is better preserved. This animal also browses closer than the stag, and is therefore very prejudicial among young trees, which it often strips too close for recovery. It seeks the female at its second year, and, like the stag, is fond of variety. The doe goes about eight months with young, and, in general, brings forth but one at a time. The buck and the stag differ essentially in some particulars; the buck comes to perfection in three years, and lives sixteen; but the stag is seven years before he comes to perfection, and lives forty years. In general the strength, cunning, and courage, of the buck, are inferior to those of the stag, and consequently it cannot afford a chase so long, so various, nor so obstinate; besides, it treads lighter, and leaves a less powerful scent, so that the dogs, in the pursuit, are more frequently at a fault.

We have in *England* two varieties of fallow-deer, which are said to be of foreign origin; the beautiful spotted kind, supposed to have been brought from *Bengal*; and the very deep brown sort, which are now so common in many parts of this kingdom: they were introduced here by King James the First, from *Norway*, where he passed some time when he visited his intended bride, Mary of *Denmark*: he observed their hardiness, and that they could endure the winter without fodder, even in that severe climate. He first brought some into *Scotland*, and from thence transported them into his chases of *Enfield* and *Epping*, to be near his palace of *Theobalds*; for that monarch, it is very well known, was fond of hunting to excess. Since that time they have greatly multiplied in many parts of this island, and *England* is now become more famous for its venison than any other country in the world.

STAG-HUNTING. The chase of the stag requires a species of knowledge which can only be learned by experience: it implies a royal assemblage of men, horses, and dogs, all so trained, practised, and disciplined, that their movements, their researches, and their skill, must concur in producing one common end. The huntsman should know the age and the sex of the animal; he should be able to distinguish with precision, whether the stag he has harboured with his hound be a knobber, a young stag, in his sixth or seventh year, or an old stag. The chief marks which convey this intelligence, are derived from the foot, and the excrement. The foot of the stag is better formed than that of the hind or female. Her leg is more gross and nearer the heel. The impression of his feet are rounder, and farther removed from each other. He moves more regularly, and brings the hind-foot into the impression made by the fore-foot. But the distance between the steps of the hind are shorter, and her hind-feet strike not so regularly the track of the fore-feet. As soon as the stag acquires his fourth horns, he is easily distinguished; but to know the foot of a young stag from that of a hind, requires repeated experience. Stags of six, seven, *&c.* years, are still more easily known; for their fore-foot is much larger than the hind-foot; the older they are, the sides of their feet are the more worn; they always place their hind-foot exactly in the track of the fore-foot, excepting when they shed their horns; the old stags misplace, at this season, nearly as often as the young ones; but in this they are more regular than the hind or young stag, placing the hind-foot always at the side of the fore-foot, and never beyond or within it. When the huntsman, from the dryness of the season, or other circumstances, cannot judge by the foot, he is obliged to trace the animal backwards, and endeavour to find his dung. This mark requires, perhaps, greater experience than the knowledge of the foot: but without it the huntsman would be unable to give a proper report to the company. After the report of the huntsman, and the dogs are led to the refuge of the stag, he ought to encourage his hound, and make him rest upon the track of the stag, till the animal be unharboured. Instantly the alarm is given to uncouple the dogs, which ought to be enlivened by the voice and the horn of the huntsman. He should also diligently observe the foot of the stag, in order to discover whether the animal has started, and substituted another in his place. But it is then the business of the hunters to separate also, and to recal the dogs which have gone astray after false game. The huntsman should always accompany his dogs, and encourage, but not press them too hard. He should assist them in detecting all the arts of escape used by the stag, for this animal has remarkable address in deceiving the dogs. With this view he often returns twice

or

or thrice upon his former ſteps; he endeavours to raiſe hinds or younger ſtags to accompany him, and to draw off the dogs from the object of their purſuit: he then flies with redoubled ſpeed, or ſprings off at ſide, lies down on his belly, and conceals himſelf. In this caſe, when the dogs have loſt his foot, the huntſmen, by going backwards and forwards, aſſiſt them in recovering it. But, if they cannot find it, they ſuppoſe that he is reſting within the circuit they have made, and go in queſt of him. But, if they are ſtill unable to diſcover him, there is no other method left, but, from viewing the country, to conjecture where he may have taken refuge, and repair to the place. As ſoon as they have recovered his foot, and put the dogs upon the track, they purſue with more advantage, becauſe they perceive that the ſtag is fatigued. Their ardour augments in proportion to his feebleneſs; and their ſcent grows more diſtinct as the animal grows warm. Hence they redouble their cries and their ſpeed; and though the ſtag practiſes ſtill more arts of eſcape than formerly, as his ſwiftneſs is diminiſhed, his arts and doubling become gradually leſs effectual. He has now no other reſource but to fly from the earth which he treads, and get into the water, in order to cut off the ſcent from the dogs. The huntſmen go round theſe waters, and again put the dogs on the track of his foot. The ſtag, after taking to the water, is incapable of running far, and is ſoon at bay. But he ſtill attempts to defend his life, and often wounds the dogs, and even the huntſmen when too forward, by blows with his horns, till one of them cuts his hams to make him fall, and then puts an end to his life by a blow of a hanger. They now celebrate the death of the ſtag by a flouriſh of their horns; the dogs are allowed to trample upon him, and at laſt partake richly the reward of their victory.

STAG-EVIL IN A HORSE, a diſtemper which is a kind of palſy in the jaws, he being ſometimes ſeized with ſuch a ſtiffneſs in the neck and jaws that he cannot move them, but turns up the white of his eyes, and is ſeized with a palpitation of the heart and beating of the flanks at uncertain intervals, which diſeaſe frequently proves mortal if it ſpreads all over the body.

It chiefly proceeds from the horſe's being expoſed to cold after a great heat.

The firſt remedy is to bleed plentifully, unleſs the horſe be old, low in fleſh, or lately taken from ſome hard duty, when you muſt not take away too much of his blood. After bleeding give the following ball: take of aſſa-fœtida, half an ounce; caſtor powdered, two drachms; valerian root powdered, one ounce: make the whole into a ball, with honey and oil of amber.

This ball may be given twice a day at firſt, and afterwards once, waſhing it down with a decoction of valerian, ſweetened with liquorice or honey.

Care muſt alſo be taken to keep the body open with laxative purges, and emollient clyſters. And after this method has been continued for eight or ten days, the following balls ſhould be given, and waſhed down with the valerian decoction: Take of cinnabar of antimony, ſix drachms; of aſſa-fœtida, half an ounce; of birthwort root, myrrh and bay-berries, of each two drachms: make the whole into a ball with treacle and oil of amber.

By purſuing this method the horſe, if he ſtands the firſt ſhock of the diſeaſe, will, in all probability, recover, unleſs the diſtemper proceeds from bots in the ſtomach, which is often the caſe, when mercurial medicines, laid down in the article bots and worms, are to be uſed; after which the balls may be continued till the convulſions are removed.

It will alſo be neceſſary to chafe and rub the ſeveral parts that are contracted; and alſo to rub into the cheeks, temples, neck, ſhoulders, ſpines of the back and loins, the following liniment: Take of nerve and marſhmallow ointment, of each four ounces, and oil of amber, two ounces: make the whole into a liniment, with a ſufficient quantity of camphorated ſpirit of wine.

In this terrible diſtemper the jaws are ſometimes ſo faſt locked, that medicines cannot be given by the mouth, and then they muſt be given by way of clyſter; for the method too often practiſed, of forcing the jaws open, increaſes the ſymptoms, by putting the creature into the greateſt agony, and therefore ſhould not be attempted. The following infuſion may be given for this purpoſe: take of rue, penny-royal, and chamomile flowers, of each a handful; of valerian roots two ounces; boil theſe in five pints of water till one pint is waſted; ſtrain the liquor from the ingredients, diſſolve in it an ounce of aſſa-fœtida, and add four ounces of common oil. This clyſter muſt be given once a day.

But as the horſe, while he continues in this melancholy condition, cannot feed, he muſt be ſupported by nouriſhing clyſters, made of milk, pottage, broths, and the like, given to the quantity of three or four quarts a-day; by which means the creature will be ſupported till the diſtemper abates, ſo far as to be able to eat his food.

It has alſo been obſerved, that the ſtiffneſs of the jaws has continued, even after the convulſions have been removed, in which caſe the following medicines ſhould be given: Take of MATTHEWS's pill and aſſa-fœtida, of each one ounce; make the whole into a ball.

This ball will generally be ſufficient to remove the ſtiffneſs: but if not, it muſt be repeated the following day, and the nervous decoctions recommended above, continued.

It is very common to make rowels in this diſeaſe; but they are generally unſucceſsful, and often mortify: ſo that if they are applied at all, they ſhould be made under the jaws and in the breaſt.

Mr. LAWRENCE ſpeaks of the ſtag-evil, and locked-jaw; as follows: This ſtag-evil, tetanus, or cramp, is ſometimes ſo univerſal and laſting, that perhaps it ought to be deemed idiopathic convulſion in horſes. As to the locked-jaw, or tetanus triſmus, it is a ſymptom, or affection ariſing from ſympathy, or conſent of parts, generally with a wounded tendon. A year or two ſince, a horſe-dealer, driving his chaiſe near town, his horſe picked up a nail, which penetrated ſo deep,

deep, that he was instantly seized with the locked-jaw, or in the common phrase, became jaw-set. I believe the horse died in a day or two.

Gibson speaks as follows of the stag-evil. He has known horses clear their racks in the night, and in the morning drink their water, and eat their usual allowance of corn; and yet, in less than half an hour, have had their mouths close shut up, and their whole bodies convulsed.

"As soon as a horse is seized in this manner, his head is raised with his nose towards his rack, his ears pricked up, and his tail cocked, looking with an eagerness as an hungry horse, when hay is put down to him, or like a high-spirited horse when he is put upon his mettle—his neck grows stiff, cramped, and almost immoveable; and if he lives in this condition a few days, knots and ganglions will arise in the tendinous parts; all the muscles will be cramped, legs stiff, wide and straddling, as if the horse were nailed to the pavement; skin drawn tight in all parts, eyes fixed, scarce any ability to walk; snorts and sneezes often, which symptom increases till he drops dead, which happens in a few days."

Gibson supposed the stag-evil to proceed frequently from worms, or ulcerations and imposthumes in the midriff, or other principal bowels. Of the methods of cure, the external chiefly remains to be treated. Bleed plentifully or otherwise, according to circumstances. Rub into the cheeks, temples, neck, shoulders, spines of the back and loins, or wherever is the greatest contraction, the following liniment. Nerve ointment, four ounces; ointment of marshmallows, six ounces; mustard-seed ground, and *Flanders* oil of bays, each two ounces; oil of amber, two ounces; make the liniment thin with camphorated spirits.

Or, as a cheap liniment, mustard-seed fresh ground, with camphorated spirits.

To perform the friction sufficiently and with effect, will require the exertions of two men, for unless there be almost continual rubbing in a dangerous case, the contraction and insensibility increases, and many horses have been so lost.

Other forms of liniment. Ethereal oil of turpentine (or the common) four ounces; nerve ointment, and oil of bay, each two ounces; camphor rubbed fine, one ounce; rectified oil of amber, three ounces; tincture of cantharides, one ounce. Or. Soap liniment, four ounces; spirit of sal ammoniac and tincture of opium, each one ounce. Mix.

Warm bath, or sweating in a hot-house, well clothed. No violence must be used to force open the mouth, which will exasperate all the symptoms, perhaps induce delirium. Nutritive clysters. Laxative and cephalic ditto. In a very bad case, Gibson had great success with crude opium, injected half an ounce in a clyster, which he afterwards followed up (the mouth opening a little) with a ball of an ounce of Matthews's pill, and two drachms of assa-fœtida, washed down with warm gruel. I should suppose camphor and nitre in a clyster, probable to be attended with good effects in this case, and would recommend repeated trials of it. Should they be joined with the opium, or laudanum, or warm spiced wine? The intent is to stimulate, to excite warmth and sensibility, and I have been informed that the discharge of cold water upon a locked-jaw has been tried, but with very ill success. The above cure was completed with several mild aloetic purges, in which were joined assafœtida, ammoniacum, and saffron; Gibson remarking, that the common plantation aloe was more apt to create, than cure nervous disorders.

STAGGARD, (with Hunters) a young male deer aged but four years.

STAGGERS, } In Horses, a disease, being a gid-
STAVERS, } diness in the brain, which when it seizes the beast often proceeds to madness.

It owes its origin to corrupt blood, or gross and ill humours which oppress the brain; sometimes from his being too soon turned out to grass before he is cold, or by hard riding, or hard labour.

The signs of it are dimness of sight, reeling or staggering, and his beating his head against the wall, by reason of violent pain, and thrusting it into his litter: he will likewise forsake his meat, and have watersh eyes.

For the cure of this distemper there are various prescriptions, some of which are, first to bleed the horse, then to dissolve the quantity of a hazle-nut of sweet butter in a saucer full of wine; then take lint, or fine flax, dip it in it and stop his ears with it, and stitch them for twelve hours.

Some boil an ounce and a half of bitter almonds, two drachms of an ox-gall, half a pennyworth of black hellebore, made into powder, grains of castoreum, vinegar, and varnish, of each five drachms, which they boil and strain, which put into his ears as before.

Soleysel directs to bleed the horse in the flanks and plate veins of the thighs, and then to give him a clyster of two quarts of emetic wine, lukewarm, with four ounces of the ointment of populeum, and afterwards to let him repose a little; and when he has voided that clyster about an hour, give him the following dose:

Take two ounces of the scoriæ of the liver of antimony, finely powdered, in five pints of beer, after it has had five or six warms over the fire, then add four ounces of unguentum rosatum, and inject this lukewarm.

Repeat this often, rubbing his legs strongly with wisps of straw moistened with warm water, to make a revulsion: feed him with bran and white bread, and walk him from time to time in a temperate place.

But if notwithstanding these applications the disease does still continue, then give him an ounce of *Venice* treacle, dissolved in a quart of some cordial waters, and inject the following clyster lukewarm:

Dissolve two ounces of sal polycrestum and *Venice* treacle in two quarts of the decoction of the softening herbs, and with a quarter of a pound of the oil of rue, make a clyster. Or,

Take the seeds of cresty, poppies, smallage, parsley, dill, pepper, and saffron, of each two drachms, pound them all to a fine powder, and put them into two quarts of water, boiling hot from the fire, and let them infuse together for three hours; strain it and give him one quart; sprinkle his hay with water, and the next

next day give him another quart fasting; let him have no cold water for four or five days, only white water, unless sometimes a mash. Or,

Make a small tough oaken or ashen stick sharp, and make a notch at one end of it, like a fork, to prevent it from running too far into the horse's head: put it up his nostril, jobbing it up and down to the top of his head, which will set him to bleeding freely.

Then in the morning fasting give him a drink well brewed together, compounded of an ounce of temeric, and the same quantity of anniseeds, in a quart of strong beer or ale, a pint of verjuice, and a quarter of a pint of brandy, and stop his ears with aqua vitæ and herbage, well beaten together; put of this an equal quantity into each ear, and stop flax or hurds upon it, to keep it down, then stitch up his ears for twenty-four hours.

The next day bleed him in the neck, and give him his blood with a handful of salt in it, stirring it well together, to prevent it from clodding; four or five hours after give him sweet hay, and warm water and bran at night.

Then tie up one of his fore-legs, and strew store of litter under him, and leave him to take his rest, and he will either recover in a day or two, or die.

The vinegar will make him stale, and the aqua vitæ cause him to sleep; if he does not come to his stomach, give him honey, white wine, and a cordial.

In inflammation of the brain, and delirium, copious and frequent bleedings, clysters, and the use of nitre, to the amount of from six to eight ounces in a day, are the only dependance. Blundevil says he has seen a mad horse bite the flesh from his own shoulders.

Gibson describes the symptom of a horse rearing up, and falling back, on the approach of any one to handle his head, referring the cause to water in the ventricle, which from the erect position of the head, flowing backward, causes a sudden pressure and weight on the cerebellum and origin of the nerves. He says young horses are most liable.

In general, the epilepsy is rather to be referred to a weak cause, and to inanition, than to plethora. The convulsions do not always proceed originally from the head, but from association with some other affected part. The causes, immediate or remote, may be constitutional debility, excessive exertion, labour unaccustomed, or too long continued without the necessary remissions. The common signs are, reeling and staggering, eyes fixed, insensibility to every thing, turning round, sudden falling down, convulsions succeeded by stillness, insensibility as if death were approaching, legs stretched out stiff and immoveable, trembling and working at the flanks; horses will sometimes continue in this state for several hours, and at last arise of themselves: a dry white foam in the mouth is generally a favourable symptom, indicating the termination of the fit.

The cure: bleeding according to strength; but here the utmost precaution is necessary, for as in the apoplexy from plethora, and a superabundance of the material of life, too free a use of the lancet can scarce be made, so in cases of exhaustion, even a small trespass on the quantity of blood, is not repaired for a great length of time. Body to be kept soluble by clysters. The following ball and drink, to be given once or twice a day at first; afterwards, once in two or three days, until the cessation of the disease. Assafœtida, half an ounce; *Russia* castor, pounded, and *Venice* turpentine, each two drachms; diapente, one ounce; make the ball with honey and oil of amber.

For the drink to wash down the ball. Take pennyroyal and mistletoe, each a large handful; valerian root, one ounce; liquorice, half an ounce; saffron, two drachms; infuse in a quart of boiling water two hours, pour off. Or, the following may be used, if necessary, to warm and invigorate the blood. Castor and assafœtida, of each half an ounce; rue and pennyroyal, of each a large handful; filings of iron tied up in a bag, half a pound; infuse in two quarts of boiling water, and keep the infusion close covered by itself. Then take *Virginia* snakeweed, contrayerva, and valerian, each half an ounce; saffron and cochineal, each two drachms; infuse in a quart of white wine (or fine sound old ale) in the sun, or by the fire side, covered, twenty-four hours. Mix a pint of the first infusion and a gill of the tincture for a dose, once a day, or oftener, if required.

The above forms are from Gibson, the first who prescribed medicines of this class for horses in the staggers, which were afterwards highly approved by Dr. Bracken, who only objected to the expence. Myrrh and ammoniacum are also recommended by Gibson.

A drink against staggers, from Bartlet. Wild valerian root, bruised, four ounces; boil in three quarts of water to two, dissolve in it eight ounces of nitre, and add one pint of antimonial wine or beer. Dose, one pint or more, every six hours, for three days. Nervous ball, from the same. Cinnabar of antimony, six drachms; assafœtida, half an ounce; aristolochia, myrrh, and bay-berries, two drachms each; ball with treacle and oil of amber.

Cheap nervous drink, from Gibson. Rue, pennyroyal, and chamomile, each a handful; assafœtida, one ounce; boil in a quart of forge-water, letting the decoction stand on the ingredients. Give two or three hornfuls every four hours.

A STALE. A living fowl put in any place to allure other fowls, to a place where they may be taken; for want of these, a lark or any other bird may be shot, his entrails taken out and dried in an oven in his feathers, with a stick thrust through him, to keep in a convenient posture, which may serve as well as a live one.

STALING, or Dunging, a suppression or stoppage of these may happen to a horse several ways; sometimes by being too high kept and having too little exercise, sometimes by being travelled suddenly after he has been taken up from grass, before his body has been emptied of it.

The sign of knowing this is, that he will lie down and tumble about by reason of the extremity of pain, just as if he were troubled with bots.

In such case to cause a horse to stale, do as follows:

Put a quart of strong ale into a two-quart pot, with as many radish roots, washed, slit, and bruised, as will

fill up the pot, ſtop the pot cloſe, and let it ſtand twenty-four hours, then ſtrain out the liquor, ſqueezing the roots very hard, and give it the horſe faſting; then ride him a little up and down, ſet him up warm, and he will quickly ſtale.

Take three or four ſpoonfuls of burdock ſeeds, bruiſe them, and put them into a quart of beer, and a good piece of butter, heat it lukewarm, and give it the horſe.

Kill a ſufficient number of bees, dry them well, and reduce them to powder, and put them into a pint of white wine or ale, and give him about an ounce of them at a time; this will open the paſſages of the primary veins, by his having taken two or three doſes, and make him ſtale freely.

STALING OF BLOOD; a horſe ſometimes happens in the midſt of ſummer to ſtale pure blood, by reaſon of immoderate exerciſe; if a veſſel or membrane be broken, it is mortal; but if it proceeds only from the heat of the kidnies, he may be eaſily cured; for in this caſe, all the urine that is tinged like blood is not blood, for a ſmall flux of blood will give a red tincture to a great quantity of urine.

For the cure: firſt bleed the horſe, then give him every morning three pints of the infuſion of crocus metallorum in white wine, for ſix or ſeven days ſucceſſively, keeping him bridled four hours before and after it; this will both cleanſe his bladder, and heal the part affected.

If the diſtemper be attended with heat, and beating of the flanks, give him a cooling clyſter; bleed him again, and give two ounces of ſal polycreſtum, diſſolved in three pints of emetic wine, which is to be got ready to be given him in the morning.

If the ſal polycreſtum takes away his appetite, or the emetic wine does not effect the cure, give him the following medicines:

Take two ounces of *Venice* treacle, or (for want of that) of diateſſorum, with common honey and fine ſugar, of each four ounces; incorporate all theſe well together in a mortar, then add anniſeeds, coriander-ſeeds, and liquorice powder, of each two ounces.

Mingle the maſs well, and give it the horſe, diſſolved in a quart of claret, keeping him bridled for three hours, both before and after; and the next day bleed him.

On the third day inject the following clyſter: take two ounces of the ſcoriæ, or droſs, of the liver of antimony, in fine powder; boil it in five pints of cow's milk whey, and as ſoon as the liquor riſes in great bubbles, take it from the fire, and add to it a quarter of a pound of olive oil; give this clyſter lukewarm.

The virtue of theſe medicines have been experienced; but if the diſeaſe ſhould ſtill continue, you muſt again repeat the whole courſe.

STALING BLOOD: this diſtemper is often cauſed by a ſtrain; for the cure, bleed the horſe, and give him ſome of the hyſteric liquor, about a large ſpoonful of ſtrong beer warm, and it will bring him into order.

STALLION is an ungelt horſe, deſigned for the covering of mares, in order to propagate the ſpecies; and when his ſtones are taken away, and he is gelt, he is called a gelding.

Now in the chuſing ſtone-horſes, or ſtallions for mares, you ought to take great care that they neither have moon-eyes, watery-eyes, blood-ſhotten eyes, ſplents, ſpavins, curbs, nor, if poſſible, any natural imperfection of any kind whatſoever; for if they have, the colts will take them hereditarily from their parents.

But let them be the beſt, ableſt, higheſt ſpirited, faireſt coloured, and fineſt ſhaped; and a perſon ſhould inform himſelf of all natural defects in them, of which none are free.

As for his age, he ought not to be younger, to cover a mare, than four years old, from which time forward he will beget colts till twenty.

Let the ſtallion be ſo high fed, as to be full of luſt and vigour, and then brought to the place where the mares are; take off his hinder ſhoes, and let him cover a mare in hand twice or thrice, to keep him ſober; then pull off his bridle, and turn him looſe to the reſt of the mares, which muſt be in a convenient cloſe, with ſtrong fences and good food, and there leave him till he has covered them all, ſo that they will take horſe no more; by which time his courage will be pretty well cooled.

Ten or twelve mares are enough for one horſe in the ſame year: it will alſo be neceſſary to have ſome little ſhed or hovel in the field, to which he may retreat to defend him from the rain, ſun, and wind, which are very weakening to a horſe: let there be likewiſe a rack and manger to feed him in, during his covering-time, and it would not be amiſs if one were to watch him during that time for fear of any accident, and the better to know how often he covers each mare.

When he has done his duty, take him away from the mares, and remove them into ſome freſh paſture.

Take notice, that when you would have mares covered, either in hand or otherwiſe, that both the ſtallion and mare have the ſame feeding, *viz.* if the horſe be at hay and oats, which are commonly called hard meats, the mare ſhould be alſo at hard meat, otherwiſe ſhe will not be ſo fit to hold.

In the like manner, if the ſtallion be at graſs, you muſt alſo put the mare to graſs.

Thoſe mares which are in middling caſe, conceive the moſt eaſily; whereas thoſe that are very fat hold with great difficulty; thoſe of them that are hot and in ſeaſon, retain a great deal better; their heat exciting the ſtallion, who, on his part, performs the action with great vigour and ardour.

And when you cover a mare in hand, in order that ſhe may the more certainly hold, let the ſtallion and the mare be ſo placed in the ſtable, that they may ſee each other, keeping them ſo for ſome time, which will animate them both, and then they will hardly fail to generate.

For the ordering of a ſtallion, ſome give the following inſtructions:

Feed the ſtallion for three months at leaſt, before he is to cover, with good oats, peaſe, or beans, or with coarſe bread and a little hay, but a good deal of wheat

wheat ſtraw; carrying him twice a day to water, walking him up and down for an hour after he has drank, but without making him ſweat.

If the ſtallion be not thus brought into wind before he covers, he will be in danger of becoming purſey, and broken winded; and if he be not well fed, he will not be able to perform his taſk, or at beſt the colts would be but pitiful and weak ones; and though you ſhould take great care to nouriſh him, yet you will take him in again very weak.

If you put him to many mares, he will not ſerve you ſo long, but his main and tail will fall away by reaſon of poverty, and it will be a difficult matter to bring him to a good condition of body againſt the year following.

He ought to have mares according to his ſtrength, as twelve or fifteen, or at moſt not above twenty.

As to foreign horſes. The *Spaniſh* horſe, or *Spaniſh* jennet, is a creature of great fire, of a middle ſtature, and generally well made in his head, body, and legs; and though his buttocks are ſomewhat long, yet they are ſtrong and well ſhaped.

After one of theſe horſes has been well taught, there is none make a better ſhow upon the parade; but he is not a horſe that will hold long in his full ſtrength, becauſe he hath rather too much ſpirit; for about half a mile, there is not a ſwifter creature in a race, but then his ſtrength fails.

A *Spaniſh* horſe is not generally thought fit for action, till he is ſix years old, for they are not till that time grown to their full perfection or beauty, and their too great fire or mettle is not till then abated ſufficient to render him ſerviceable.

The laſt thing that is complete in *Spaniſh* horſes, is the creſt; the horſes of this breed are naturally inclined to bound and to make faults, raiſing all four feet at once from the ground; but their limbs being weak and ſmall, they are very ſubject to be ſinew-ſtrained, or otherwiſe lamed in a ſhort time after they are fit for ſervice.

No kind of horſe has ſuch open noſtrils, or ſnorts more in all his goings, than the *Spaniſh* horſe; his trot is ſomewhat long, irregular or waving, for which reaſon ſome jockies have choſe to bring them to the pace or amble.

The *German* horſes. Theſe horſes are for the moſt part very tall, and large of body, not very beautiful in make, but ſeem to be of great ſtrength, and being brought into the manage, perform ſome of the moſt difficult leſſons with agility enough: they gallop very ſlow or heavy, and trot very high; but they are ſtrong, and better for the draft or burden, than the manage.

The *Hungarian* horſes. Theſe horſes are generally hook-noſed, and have thick heads, large eyes, broad jaws, but narrow noſtrils; their manes are rough and thick, commonly reaching near the ground; their tails, in like manner, are buſhy and long; for the moſt part of lean and thin bodies, and weak paſterns: but although ſome part of them are not to be liked, yet the deformities are generally ſo well put together, that, taken all together, the horſes are agreeable enough.

They are of a tolerable good courage, and will endure labour and fatigue, and for that reaſon are ſerviceable in war.

The *Swediſh* horſes. Theſe are of ſmall ſtature, their ſhape indifferent, and are of but ſmall ſervice.

The horſes natural to *Sweden*, are, for the moſt part, either white, dun, or pied, and wall-eyed; ſo that unleſs they are improved by other breeds, they are not to be ranked with them that are of good eſteem.

The *Poliſh* horſes. Theſe are much like the *Daniſh* horſes, and are generally about the ſize of the *Spaniſh* jennet, are of a middle ſtature, but their limbs are much better knit together, and are of a much ſtronger make than the *Spaniſh* ones.

Theſe horſes are in many reſpects like our natural *Engliſh* horſes, except that their heads are ſomewhat ſlenderer, like the *Iriſh* hobby; but their necks and creſts are raiſed upright, and very ſtrong; their ears are very ſhort and ſmall, and their backs capable of bearing any weight; their chines are broad, and their hoofs are judged to be as good as thoſe of any horſe in the world.

They are very good for a journey, and will endure long ones, with more eaſe than any other horſe.

Flanders horſes. Theſe differ in ſhape but little from the *German* breed, they are tall in ſtature, have ſhort and thick heads, bodies deep and long, buttocks round and flat, their legs thick and rough.

Theſe horſes and the mares of the ſame kind, are eſteemed chiefly for the draft in which, for ſtatelineſs, they excel moſt horſes in *Europe;* but are to be rejected for the ſaddle, being both ſluggiſh and uneaſy.

The *Flanders* horſe and mare both have a hard trot, but are much uſed in the harneſs with us in *England.*

The *Neapolitan* horſe. This horſe is highly eſteemed for his ſtrength and courage, which, together with his gentle diſpoſitions, make him more valued.

His limbs are ſtrong, and well knit together; his pace is lofty, and he is very docile for the performance of any exerciſe; but a nice eye may diſcover that his legs are ſomething too ſmall, which ſeems to be his only imperfection.

He may be known by his head, which is long, lean, and ſlender, bending from the eyes to the noſtrils, like a hawk's beak; he alſo has a very full eye, and a ſharp ear.

The *Sardinian* horſes. Theſe, and thoſe of *Corſica*, very much reſemble the *Neapolitan*, but are ſomewhat ſhorter bodied, and of a more fiery diſpoſition; but by good management may be brought to very good diſcipline.

Turkiſh horſes. Theſe horſes are originally natives of *Greece* and bear an extraordinary price with us, partly becauſe of their extraordinary beauty, and partly becauſe of the great expence of bringing them over.

Theſe *Turkiſh* horſes have fine heads, ſomewhat like *Barbary* ones, beautiful fore hands, and ſtraight limbs, rather ſmall than large, are of a moſt delicate ſhape, their pace is genteel and graceful, and beſides they are horſes of good ſpirit.

Their coats are ſmooth and ſhort, and their hoofs

long and narrow, which is a sign of swiftness; in a word, they are horses of great beauty, courage and speed.

Their colour is, for the most part, grey or flea-bitten, though there are some of a bright bay colour; but most of these we have now in *England* are grey.

English horses. The true bred *English* horse, has been accounted a creature of great strength and spirit, and he has been, by some authors represented as of a very large size; but at present we have hardly any that can be called true bred *English* horses, or that can be said to be the offspring of an horse and mare, that were both lineally descended from the original race of this country: unless we may account those horses to be such that are bred wild in some forests, and among mountains.

Among them, perhaps the mares and horses were both of the first *English* race, without mixture: however, it is not certain, but some horses of foreign countries, of which many have been, and still are, frequently brought over, were turned into those wild places, as convenient pasture, and have mixed with the natives of *Britain*.

However, seeing we cannot seek for *English* horses any where else than in forests and wild places, we will suppose those to be the true bred *English* race of horses.

These we find to answer the character, so far as relates to strength and good spirit; but they are not large, though very hardy, and will always keep good flesh on their backs, and thrive where other horses can scarce live.

It is not improbable but that the race might have been much larger than they now are, because in the first time they were at liberty to range any where, and take their pleasure where it pleased them best, and all grounds then lay open, or else there were but very few inclosures, in comparison to what there are now. And when they had that plentiful share of food, we may naturally imagine that their bodies were much larger than they are at present; for it is a certain rule, that the less share of nourishment any creature has during the time of its growth, so much the smaller will he be in stature.

But there are now very few of this wild sort in use, in comparison to what there were a hundred and fifty, or two hundred years ago; and those that are now taken up, are not easily tamed: but when they are once disciplined, they will endure more labour than any horses in the known part of the world.

Irish hobbies. These are also of a wild breed, and are generally well made, much after the manner of the *English* wild horses; they have fine heads, strong necks, and well turned bodies, quick eyes, good limbs, and other good qualities sufficient to recommend them; are brisk and courageous, and very sure footed: but both these are subject to start, which, I suppose, proceeds from their wild way of living, where they have not had the opportunity of knowing or seeing any thing but trees or bushes, and therefore every thing else seems strange and shocking to them.

But if they happen to be young, when taken from the forest, or other wild pastures, this may probably be overcome; but if they are not so, then I judge it impossible ever to break them to it; for they having never known any thing but wild scenes, and been a long time habituated to them, every thing that differs from them will seem strange, if not monstrous, and will strike them with fear and horror, never to be corrected.

We are informed that these *Irish* horses are so wild, that the only way of taking them, is by assembling a great number of people together, and driving the whole stud, horses and mares, colts and fillies, into a bog, where they cast halters over the heads of those they think fit for service, letting the others run again into the country.

Our *English* horses in forests are not taken with less labour, for many artful devices must be used, and a great deal of labour too is required in the taking them.

And after all, great care must be taken that they have most gentle usage, to make them as familiar as possible and at the first, not letting them have any thing to eat, but what we feed them with out of the hand, till they are grown very well acquainted with their keepers.

It is not to be expected that they will all of a sudden quit their wildness, but thus feeding them, and keeping them awake for some time, will tame them by degrees.

It ought to be observed, both in taming or teaching of horses, that they are to be used with tenderness, rather than roughness, and no passionate person ought to be concerned in their breaking or management; but a man that undertakes this business ought to be patient, and a master of reason; and for want of these qualifications being put in practice in the management of them, many a good horse has been spoiled, having either been pushed on by the passion of the rider to over-strain themselves, or else to start and fly out of the way, at the least touch of the whip or spur, and thereby endanger the rider; or to hate the rider, and take every opportunity of doing him a mischief, either in mounting, or when he is on his back, or dismounting.

There are many instances to prove that horses have a memory, and will resent injuries that have been offered them. I have known some horses which would not stand still to be shod by a farrier, of whom they had before received some violent usage; when at the same time they would freely suffer themselves to be shod by strangers. Others have been so provoked at the sight of a farrier, with a leather apron, that they have endeavoured all they could to do him a mischief, either by biting or kicking. Nor are we without the knowledge of melancholy accidents that have happened to grooms, who have used their horses with too much severity.

I shall conclude what has been said of foreign horses, the natural bred *English* horses, and *Irish* hobbies, with saying, that when we see a fine horse now adays which was foaled in *England*, and bred of a mare and horse that was likewise bred in the same place, we cannot be certain that such a horse is of a true *English* breed, unless we could know further of his generation;

tion; his grandsire or grandam might, perhaps, be both foreigners.

But we say thus much of horses which have been foaled or bred in *England*, though they are the offspring of foreigners, they will be stronger, and have a better spirit, than if the same had been abroad; because the food in *England* for horses is more hearty and nourishing than in any other country in *Europe*, especially our grass, which is the principal food for horses, is in greater plenty in *Britain* and *Ireland*, than in any other *European* nation besides.

For which reason in the hotter countries, they are forced, for want of grass, to cultivate clover, saintfoin, *&c.* and feed their horses with these, and chopt straw and corn; but chopt straw is only for them when they are grown fit for use, they having only during their first two or three years, clover, saintfoin, *&c.*

Of the cross strains of horses. It is well known, that in *Britain* have been bred horses of all kinds before mentioned, which have not only been as good as those bred in their respective countries, but have been allowed to exceed them in strength and beauty.

But this should be remembered, that of every kind of horses mentioned before, it has been thought proper in our trading, sporting, and warlike country, to compose out of the variety, such horses as may prove useful to every sort of business.

We have some for carrying burdens, some for the road, some for hunting, others for ambling, and others for the coach and other carriages; some likewise for racing, and some for the manage, to be trained either for the war, or diversion of great men.

As to the mixing of breeds, some are of opinion, that such horses designed to be trained for the war, should be bred from a *Neapolitan* stallion, and an *English* mare, or of a *Turkish* stallion, and an *English* mare.

The next breed to be desired, is between a *Turkish* stallion, and a *Neapolitan* mare, which produce a fine race of a great value.

Some say that stallions of *Corsica* and *Sardinia*, coupled with *Turkish* mares, will produce a fine breed; and that the *Spanish* jennet, and *Flanders* mare, produce an excellent offspring.

But this we are certain of, that any of the aforesaid kinds of horses covering true born *English* mares, will beget better colts or fillies, than if they had coupled with their own race, in their own country.

And there is a good reason for this, because no race of horses in the world have such hearty feedings as those of *Britain*, where liberty renders every farmer capable of cultivating his lands, and providing plentifully for himself, and all about him.

This causes all of our breed to be strong and hearty, and when the mare is so, the race that proceeds from her must be so much better, as she is stronger than the mares that are fed in other countries where the provender is more coarse, and less nourishing.

As to the breeding of horses for racing, some gentlemen chuse to put a *Barbary* horse to an *English* mare; others will have both the sires and dam to be *Barbs*; others again are for coupling the *Barbary* horse with the *Turkish* mare, and indeed any of these couplings produce horses of great speed.

The cross strains of horses we now have, are not to be numbered; but if we were to trace the breeds of the best running horses, we should find them to proceed from such mixtures.

The many horse races, so frequently the diversion of our *English* nobility and gentry, are chiefly performed by such mixtures in breed.

For though one horse truly bred of one particular country, may be swifter than another, yet if he wants strength he will be a loser in the course, and will fall from his speed if the course happens to be wet and heavy; but the coupling before-mentioned, when brought together by a man of right judgment that way, may produce something admirable at *Newmarket*, &c.

As to hunting-horses, which are chiefly the delight of the *English* gentry, these ought to be nimble, full of courage, and strong.

The original of the best we know, have proceeded from a cross strain, between the *Turkish* stallion, and *English* mare; and there is great reason for this opinion, since we are already certain of the strength of our *English* bred mares, and the good courage and swiftness of the *Turkish* and *Barbary* horses.

But every one who breeds such horses, has his peculiar fancy; they employ some favourite stallion, or favourite mare to raise a breed from, and are different in opinion about this: one of any particular breed will not be so good as another, although the same care should be taken in the coupling the sire and the dam.

All that can be said is, that a stallion of vigour and speed ought to be chosen, and a mare of a strong and healthful body; and from such coupling may be expected well bred horses of strength and courage.

The pad or ambling horse, is chiefly desired for ladies; to produce such, let the sire be a *Turk*, and the dam a *Scotch* poney, or *Irish* hobby, and these between them will produce a race that will be natural pacers. And again, a *Turkish* sire, and an *English* mare of a small size, will naturally produce for the pace or amble.

Then as for the burthen or pack, the *German* horse will be a good sire for a *Flanders* or *Flemish* dam; these will produce a breed strong and tall, fit either for carrying great weights, or war.

If one of this breed happens to be trained for the army, his rider, with his accoutrements, will hardly be less than thirty stone.

The *Northamptonshire* breed of horses are generally coveted for this use, the original of which came from a mixture of the kind before mentioned.

These are also good for the draught, either in the coach or cart, and many have been of the opinion, that the mares of this breed are as serviceable in strength and action, as the horses: and the stallions and mares of this cross strain are rather preferable to the original sires or dams; being more habituated to the food of the country, or as one may say, naturalized to the *English* provender, than those that came from their respective native countries.

The crossing of strains, or coupling one kind with another, has of late so much improved our breed in *England*, that we have them now of all sorts, and for all

all uſes, in more perfection, than any other country in the world.

Some *Engliſh* authors have obſerved, that the beſt horſes are rather from the croſs-ſtrain; than immediately from the natural breed of any country, for our *Engliſh* mares mend the breed; they ſtrengthen the joints of the *Spaniſh* jennet, the ſlenderneſs of the limbs of the *Turk* or *Barb*, and the too long and rough hair about the paſtern of the *Spaniſh* breed.

In the latter caſe when the hairs are long upon the paſterns, it would be difficult for their keepers to preſerve them from the malanders or ſcratches, which the *Flanders* horſe or mare is frequently attacked with, unleſs that hair was ſinged or burnt off.

As for the age of a ſtallion; ſome adviſe to try the age and courage of a ſtallion, by taking up part of the ſkin, and if it return quickly to the body, and become ſmooth, it is a ſign of his vigour and youth; and, on the contrary, if it remains ſome time without returning to the part whence it was pulled, it is a ſign that the horſe is either old or infirm; but if on the contrary, he is fit for buſineſs.

Another way to try if a horſe be young or old, is to take the ſtern or tail next the buttock, between the finger and thumb, and preſſing that part hard, if they find the joint there bigger or more prominent than the joints of the tail (as big perhaps as a hazle nut, or thereabouts,) they conclude the horſe to be under ten years old; but if that joint be equal with the other joints in the tail, they ſuppoſe the horſe to be paſt that age.

Another way is, to examine the horſe's eyes, whether they be full; his body, whether or not it is in good condition; as alſo whether he has courage; if his coat be ſmooth, and if the hollow of his eyes be full; for if all theſe meet together, expert jockies conclude a horſe is young, aud fit for generation. *See* AGE OF A HORSE, MARE, STALLION, STUD.

STALKING-HORSE; without which there is no getting to ſhoot at ſome fowl, by reaſon of their ſhyneſs; which ſtalking-horſe ſhould be ſome old jade, trained up for that purpoſe, who will gently, and as you would have him, walk up and down in the water which way you pleaſe, flodding and eating of the graſs that grows therein. *See* Plate XV. and ARTICLE TUNNEL-NET.

You muſt ſhelter yourſelf and gun behind his foreſhoulder, bending your body low by his ſide, and keeping his body full between you and the fowl; being within ſhot, take your level from before the forepart of the horſe, firing as it were between the horſe's neck and the water, which is much better than firing under his belly, being leſs perceivable.

But by reaſon of the trouble and time that a real ſtalking horſe will take up, to make fit for this purpoſe, you may make an artificial one, of ſome pieces of old canvas, ſhaped like a horſe, with his head bending downward as if grazing; it may be ſtuffed with any light matter, and painted of the colour of a horſe, of which the beſt is brown, and in the middle let it be fixed to a ſtaff, with a ſharp iron at the end to ſtick it into the ground as you ſee occaſion, ſtanding faſt while you take your level.

It muſt alſo be ſo portable, that you may with eaſe bear it with one hand, and move it ſo as it may ſeem to graze as you go.

It muſt neither be too low nor too high in ſtature, for the firſt will not hide your body, and the other will be apt to ſcare away the fowl.

You may, inſtead of this ſtalking-horſe, form out of canvas painted, an ox or cow; this change is very proper, after you have ſo ſcared the fowl with your ſtalking-horſe, that they begin to find out the deceit (as it frequently happens): then you may ſtalk with an ox or cow, till the horſe be forgotten, and by this method continue your ſport.

In low fenny grounds, the ſtalking with ſtags or red deer is very proper, where ſuch deer do uſually feed, and are more familiar with the fowl, and ſo feed nearer them than either the ox, horſe, or cow: which ſtalking ſtag, or deer, are formed out of canvas painted, with the natural horns of ſtags fixed thereon, and the colour ſhould be painted ſo lively, as that the fowl cannot diſcern the deceit, by which means you will come within a much nearer diſtance.

There are likewiſe other engines to ſtalk withal, ſuch as an artificial tree, buſh, or ſhrub, which may be made into ſmall wands, and with painted canvas made into the form of the body of a tree, as a willow, poplar, or ſuch trees as grow by rivers, and water-ſides, which are the beſt.

If you ſtalk with a buſh or ſhrub, they muſt not be ſo tall as your tree, but much thicker; which may be made either of one entire buſh, or of divers buſhes interwoven one with another, either with ſmall withy-wands, cord or packthread, that may not be diſcerned: and let not your buſh exceed the height of a man, but be thicker than four or five inches, with a ſpike at the bottom to ſtick into the ground, whilſt you take your level.

If you deſign theſe artificial ſtalking engines for fowls that flock together, eſpecially water-fowl, they will ſoon grow too crafty for thoſe that are unſtuffed; but for pheaſants, woodcocks, and the like, there cannot be a more uſeful and cheaper way, than to uſe thoſe that are unſtuffed; for when you have made the ſhot, you may roll up the engine, and keep it for another occaſion.

Take notice, that theſe ſeveral ſorts of engines before mentioned, are to be uſed only in the morning, or late in the evening, and are more proper for water than land-fowl; for when the ſun is up, its reflection ſooner diſcovers the imperfections of the engine, which are better hidden by the water.

STANCHING BLOOD; in caſe a horſe, *&c.* happens to be cut or hurt, fill the cut full of the wool of a hare or rabbet, and hold it in ſome time with your hand, or elſe bind it on the part; then burn the upper leather of an old ſhoe, and ſtrew the aſhes among the wool, and let it lie on for twenty-four hours, and it will ſtanch the bleeding. Or,

Boil together honey, wax, turpentine, ſwine's greaſe, and wheaten flour, ſtirring and mixing them well together,

gether, till they are become an ointment, then take it off the fire, and put it up in a gallipot for use; but if the cut be of any considerable depth, put in a tent of flax, or linen cloth dipped in the ointment, and lay a plaister of the same over it, letting it lie on twenty-four hours.

If a horse happens to bleed violently at the nose, stamp betony in a mortar with salt, and put it into his nose, applying it to the wound and it will stop it; but if he be taken suddenly in the highway, &c. and you cannot get the herb, scrape a felt hat or piece of woollen cloth with a knife, and apply it to the part, and it will stanch it.

STARE. } A bird kept for his whistling;
STARLING. } but the great fault generally is, that they get them too much fledged out of the nest, which makes them generally retain too much of their own harsh notes; such therefore as would have them good, and void their own natural speaking tone, must take them from the old ones at two or three days old; and this should be done; by all birds that you design to learn to whistle or speak, or would have learn of another bird by hanging under his cage.

STARS; are distinguishing marks in the foreheads of horses, and they are usually made either white, black, or red.

The method of making which is as follows:

If you would have a white one in his forehead, or indeed any other part of his body, first, with a razor, shave away the hair, of the width or bigness that you would have the star to be; then take a little oil of vitriol in an oyster shell, and dip a feather or piece of stick into it, for it will eat both linen and woollen, and just wet it all over the place that you have shaved, which will eat away the root of the hairs, and the next that come will be white. It need not be done above once, and may be healed up with copperas-water, and green ointment.

STARTING; in the manage a horse is said to be starting, skittish, or timorous, that takes every object he sees to be otherwise than it is.

This fault is most common to horses that have defects in their eyes: you should never beat a starting horse in his consternation, but get him to advance gently to the object that alarms him.

STAY. To stay the hand; to stay or sustain a horse, is to hold the bridle firm and high.

We likewise stay or sustain a horse with the in-leg or the in-heel, when he makes his croup go before his shoulders upon volts.

We stay a horse again when we hinder him to traverse, when we ride him equally, keeping him always subject, so that his croup cannot slip out, and he can lose neither his cadence nor his ground, but marks all his times equal.

STEP AND LEAP; is one of the seven airs, or artificial motions of a horse, being, as it were, three airs; for the pace or step in *terra a terra*, the raising is a corvet, and the leap finishes the whole.

The steps put the horse upon the hand, and gives him a rise to leap like one that runs before he leaps, and so many leaps higher than he that goes every time a leap. For leaps of all kinds, give no help with your legs at all, only hold him with the bridle-hand when he rises before, that so he may rise the higher behind; and when he begins to rise the higher behind, then put you bridle-hand a little forwards to hold him up before, and stay him there upon the hand, as if he hung in the air; and time the motion of your bridle-hand, so as that you may take him as if he were a ball upon the bound, which is the greatest secret of all in leaping a horse right.

STERN, [with Hunters] the tail of a greyhound or a wolf.

STEW, is a kind of fish-pond, contrived for serving the daily use of a family, so that with little trouble the house may be furnished with fish at any time.

This should be so situated as to be near the chief mansion, and inclosed, the better to be defended from robbers.

If you have two great waters of three or four acres a piece, it will be proper to have four stews, of two rods wide and three rods long each.

In making of these the sides should be cut down sloping, carrying the bottom in a continual decline from end to end, so as you may have a convenient mouth, as horse-ponds have, for the taking out your nets when you have drawn for fish; and if you have room enough you may make a mouth at both ends, and the deepest part should be in the middle, by which means your net may be drawn backwards or forwards; and the fish should not have such shelter as a depth under a head will be.

Add to this, that fish delight in coming upon the shoals, and in all probability they thrive the better.

These may chiefly be reserved for carp, but not absolutely; and if you perceive your tench and perch to encrease and prosper, you may make lesser stews to serve them a-part, and so you may have them when you please, without disturbing the other fish.

But remember this, that perch will scarce live in stews and small water, in hot weather, but will pine, grow lean and thin, if not die: so that the stews are to be their winter quarters, but in the summer they should be in green ponds.

STICKLE-BACK; this fish is small, prickly and without scales, and not worth minding, but that he is an excellent bait for trouts, especially if his tail be turned round on the hook, at which a trout will bite more eagerly than at penk, roach, or minnow.

The loach is also as good bait as the stickleback, provided you place it right on the hook.

And that you may do it, take this observation, that the nimble turning of the penk, minnow, loach, or stickle-back, is the perfection of that sort of fishing.

That you may do it the better, take notice that you must put the hook into the mouth of any of the aforesaid baits, and out at their tail, tying him fast with white thread a little above it, in such sort that he may turn; after this sew up his mouth and you have done.

This way of baiting is very tempting to large trouts, and seldom fail the angler's expectation. This fish is in some places called a bandsticklo.

STIFLE

STIFLE IN A HORSE, a large muſcle, or that part of the hind-leg which advances towards his belly, ſimilar to the ſmall cramp bone in a leg of mutton; and is a moſt dangerous part to receive a blow upon.

STIFLING, is a malady that accidentally befals a horſe either by ſome ſtrain, by leaping, or by a ſlip in the ſtable, or in travelling, or elſe by ſome blow or ſtroke, which puts out the ſtifle-bone, or much hurts and ſtrains the joint.

The ſign of this is by the diſlocated bone bearing itſelf out, which will make him go lame, and unwilling to touch the ground but only with his toes, till it be put in again.

The common method of cure is to ſwim the horſe in ſome deep water or pond, till he ſweats about his ears, which will put the bone into its right place again, and when he is thought to have ſwam enough, to take him out of the water and to throw an old blanket over him, to prevent him from taking cold, and lead him gently home.

Then begin in the ſtable; put a wooden wedge of the breadth of a ſixpence between the toe and the ſhoe, on the contrary foot behind, and when he is thoroughly dry anoint the part aggrieved with hen's greaſe, or oil of turpentine, and ſtrong beer, of equal parts alike, well ſhaken and mixed together in a vial.

It is to be well chafed in with the hand, one holding at the ſame time a hot bar of iron or fire-ſhovel, to make it ſink in the better: or you may apply to it brandy and common ſoap, and ſtrong beer, mixed together:

Or, tie down the horſe's head to the manger, and faſten a cord to the paſtern of the ſtifled-leg, and draw his leg forwards, ſo that the bone will come right by being helped with the hand; keep it in this poſition exactly, and tie the other end of the cord to the rack, that the horſe may not pull his leg back ſo as to diſlocate the bone for an hour or two, till after it has been ſettled and dreſſed.

Then having ready melted pitch in a pot, dip a bit of a clout tied to a ſtick into the pitch, anoint the ſtifling with it, to the breadth of three or four inches, and the length of ten; and immediately before the pitch can cool, having ready a ſtrong piece of canvas cut fit for the purpoſe, and very well warmed by the fire, clap it ſo neatly upon the place, that the bone cannot ſlip out again.

Take notice, that this plaiſter muſt not be long-ways towards the foot and flank; but croſs-ways upon the joint, as it were about the thigh; for otherwiſe it cannot hold in the bone.

When you have laid on the plaiſter, anoint it all over with the melted pitch, and while it is warm, clap flax, the colour of the horſe, all over the outſide of the canvas.

Let the plaiſter remain on till it falls off of itſelf; but if the bone be out, then put in a *French* rowel, a little below the ſtifling place, and let it remain fifteen days, and turn it once every day: at the end of fifteen days take it out, and heal up the orifice with green ointment.

STIFF LEGS, a diſeaſe in horſes, under which are alſo comprehended dry, decayed or bruiſed legs.

For the cure: take of ſpirit of wine a quart; oil of nuts, half a pint; butter half a pound; put them into a glazed earthen pipkin and melt them, covering the veſſel with another that is leſs, exactly fitted to it, lute the junctures well with clay, mixed with horſe-dung or hair; and after the cement is dry, ſet the pot on a very gentle fire, and keep the ingredients boiling up, very ſoftly for the ſpace of eight or ten hours; then take off the pot and ſet it to cool: when uſed, rub the maſter ſinew with your hand till it grows hot, then anoint it with this compoſition, chafing it in, and repeat the ſame every day.

STIPTIC POWDER; is a reſtringent preparation of iron, commonly called COLEBATCH'S *Styptic Powder*, after the name of its inventor, SIR JOHN COLEBATCH. It is prepared after the following manner:

Upon what quantity of filings of iron you pleaſe pour ſpirit of ſalt, ſo as to cover them to the height of three or four fingers, and let them ſtand in a gentle digeſtion, till the fermentation is over, and the ſpirit of ſalt is become ſweet; then pour off the liquid part, and evaporate in an iron or glaſs veſſel, till half of it is waſted; then put it into an equal quantity of *ſaccharum ſaturni*, and evaporate it to a dry powder; if the evaporation be ſtopped at its firſt becoming dry, it has exactly the appearance of COLEBATCH'S *Powder*; but if it be continued longer, and the heat raiſed, it will turn red.

This muſt be kept ſtopped up very cloſe from the air, or elſe it will imbibe, and ſo flow as to loſe its efficacy.

Dr. QUINCY tells us, that he was very well informed, that this was the ſtyptic that made ſo much noiſe in the world ſome years ſince, by the author of *Novum Lumen Chirurgicum*, and for the ſale of which a patent was procured; except, the oil of vitriol was uſed in that, inſtead of the ſpirit of ſalt in this; and that the difference is very inſignificant.

He ſays alſo, that he kept ſome of this by him, till he found a proper opportunity to try it, when an extraordinary one happened, by a blundering farrier cutting the jugular artery of a very fine young horſe: and that having ſtopped the flux of blood, by griping the part with his hand, till the doctor had diſſolved ſome of this powder in warm water, and with currier's ſhavings of leather dipped in it, he applied it to the part, not one drop of blood followed afterwards, and the part was eaſily incarnated and healed up.

STIRRUP, a well known iron frame, faſtened to a ſaddle with a thong of leather, for the rider to reſt his foot on.

Let your ſtirrup-leather be ſtrong, as alſo the ſtirrup-irons, which ſhould be pretty large, that you may the ſooner quit them in caſe of a fall.

Stirrup, is a reſt for a rider's foot, compoſed of ſome ſmall pieces of iron, forged into bars, and level below, but arched in the upper part, by which part they are hung in ſtirrup-leathers.

Bear vigorouſly upon your ſtirrup when you have your foot

foot in it, and hold the point of your foot higher than the heel.

When you would ſtop your horſe, you muſt bear upon the ſtirrups.

You ſhould keep your right ſtirrup half a point ſhorter than the left, for in combat the horſeman bears and reſts more upon the right, and to facilitate the mounting of your horſe, the left ſtirrup ſhould be longer than the other.

To loſe one's ſtirrups, is to ſuffer them to ſlip from the foot.

The ſtirrup foot, or the near fore foot, is the left foot behind.

Stirrup-leather, is a lathe or thong of leather, deſcending from the ſaddle, down by the horſe's ribs, upon which the ſtirrups hang.

Stirrup-bearer, is an end of leather made faſt to the end of the ſaddle, to truſs up the ſtirrups when the rider is alighted, and the horſe ſent to the ſtable.

STOMACH SKINS; there are ſome foals under the age of ſix months, which, though their dams yield abundance of milk, decay, and have a cough, occaſioned by certain pellicles or little ſkins that breed in their ſtomachs, even to that degree as to obſtruct their breathing, and at laſt utterly deſtroy them.

To cure this malady, take the bag wherein the foal came out of the belly of its dam, and having dried it, give as much thereof in milk as you can take up with three fingers.

This remedy is alſo good for all diſeaſes that befal them while they are under ſix years of age: but if you cannot have the bag, then take the lungs of a young fox, dry and powder them, and uſe it inſtead of the aforeſaid powder.

STONE FALCON, a kind of hawk that builds her neſt on rocks.

STONE-BRUISING, a misfortune that befals the cods of a horſe by divers accidents.

For the cure: take honey and freſh butter, of each half a pound, melt them; to which add the juice of green coleworts, one pound; leaves of rue picked from the ſtalks, a good handful; black ſoap, four ounces, and one pound of bean-flour; ſtamp the rue in a marble mortar, then add the honey, and afterwards the juice of coleworts, butter, and black ſoap; mix them well without heat, and make a poultice with the bean-flour, and apply it cold with a hog's bladder, and keep it on with a bandage tied about the horſe's back.

Hard ſwellings may be cured by this method, and removing the dreſſing once a-day; and the quantity here preſcribed will probably be ſufficient to perfect the cure, by being applied frequently.

But if the ſwelling be attended with a great inflammation, then add to the whole compoſition two drachms of camphor, diſſolved in three ſpoonfuls of the ſpirit of wine; but if by the bruiſe the tumour be ſeated in the ligaments that are above the ſtone, chafe the part with ſpirit of wine camphorated, and afterwards apply the following cataplaſm or poultice.

If you have reaſon to believe that there is matter generated in the ſtones, ſpread *emplaſtrum divinum* on very ſoft leather, about the bigneſs of the palm of your hand, and lay it upon the part affected, even where the matter ſeems to be ſeated, and then apply the poultice, and if the matter be either actually generated, or ready to be formed, the plaiſter will draw it.

You muſt take the plaiſter off once a day and wipe it, but you need not change it; and by following this method the horſe may be cured without gelding.

The horſe muſt be let blood both at the beginning and end of the cure.

STONES-SWELLING, } (in Horſes) a malady
STONES-HARDENING, } towhich they are incident. *See* the article CODS.

For the cure: take yellow wax, freſh butter, and oil of olives, of each half a pound; ſtrong vinegar, half a pint; boil them together till the vinegar be almoſt conſumed, then take the veſſel off the fire, and put in an ounce of camphor powdered; make a poultice and apply it to the ſwelled cods; let it lie on four hours, then lay on another poultice upon the firſt, without taking off the former or uncovering the part.

If the inflammation be but a ſimple one, it will aſſwage the ſwelling and abate the pain; but if the ſwelling ſhould continue after the heat and pain is removed, and the cods do hang down very low, it is a ſign that the horſe is troubled with a hydrocele, that is, when by a relaxation of the peritonæum, the cods are filled with water, which having been too long retained in the part, by reaſon of the great difficulty of expelling it through the pores, may corrupt and ulcerate the ſtones.

For the cure of this ſort of ſwelling, or hydrocele, make a ſort of gruel with barley-meal and vinegar, and when it is almoſt boiled, take half the quantity of chalk; with a ſufficient quantity of oil of roſes and quinces, and two handfuls of ſalt; apply this remedy as hot as you can endure it with your hands, and bind it on very carefully:

Or, boil a ſufficient quantity of beans in lees of wine, till they are ſoft and tender, then pound them to a maſh, to every pound of which add a quarter of an ounce of caſtoreum in fine powder; incorporate them well together, and ſew two pounds of them up in a bag large enough to cover the ſtones; firſt anoint the cods with ointment of the oil of roſes, and then lay on the bag as hot as you can ſuffer it to lay on the back of your hand, binding it on as well as you can; let it lie on for twenty four hours; then heat the bag again in the ſame lees of wine in which the beans were boiled, and lay it on again; repeat this continually till the ſwelling be abated.

If the *peritonæum*, or rim that holds the entrails, be relaxed, the guts will fall into the cods, which will appear viſible. In this caſe you muſt firſt endeavour to put up the fallen guts, and then apply the following fomentation:

Take of the bark of the pomegranate and oak trees, green oak apple, *Cyprus* nuts, barberries, and ſomach, of each two ounces: anniſe and fennel ſeeds, of each

an ounce, chamomile melilot, and pomegranative flowers, of each a handful, and powder of crude-alum, four ounces; put them into a bag large enough to cover the horse's cods (and if this quantity be not sufficient double it) sew it up after the manner of a quilt, and put the first quantity with a quarter of a peck (or half for the double) of beans in a pot of sloe wine, or some thick red wine, and boil them for the space of two hours; then apply the bag moderately hot to his cods or stones, cleverly fastening it on with a bandage, put round the flanks, and tied on the rump. Continue this application for some time, heating the quilted bag afresh every time in the same liquor.

But after you have put up the guts, the surest way is to geld the horse, for then the cods will shrink up, and the guts will not any more come down into them.

But if it be a rupture, incording or burstenness, which is when the rim, thin film, or caul, which holds up the entrails, is broken, or over-strained, or stretched, so that the guts fall down either in his cods or flank: then use the following remedy:

Take common pitch, dragon's-blood, powder of bole-ammoniac, mastic, and frankincense, of each one ounce, make a plaister of these, and lay it upon the loins of the horse, and on the rupture, letting it abide on till it falls off itself, and it will cure him; but then you must at the same time give him strengthening things inwardly, of which there are many prescribed, as rupture-wort, cross-wort, valerian, &c.

Or, carry the horse into a place where there is a beam over-thwart, and strew it thick with straw; then put on four pasterns, four rings on his feet together, and he will fall, then cast the rope over the beam and hoist him up, so that he may lie flat on his back, with his legs upwards, without struggling; then bathe his stones with warm water and butter melted together; and when they are become something warm, and well mollified, raise them up from the body with both your hands, being closed by the fingers, close together; and holding the stones in your hand, work down the gut into the body of the horse, stroking it downwards continually with both your thumbs, till you perceive that side of the stone to be as small as the other.

Having thus returned the gut to the right place, taking a list of the breadth of two fingers, and having anointed it very well with fresh butter, tie his stones close together with it, as nigh the body as you can possibly, but not too hard, but so that you can put your fingers between.

Then raise the horse, and lead him gently into the stable, set him up and keep him warm, and let him not be stirred for the space of twenty-one days; but do not omit the next day to unloose the list, and to take it away, and to throw a bowl or two of cold water upon the cods once or twice for that day and every day after: this will make him shrink up his stones, and by that means hinder the gut from falling down.

At the end of twenty-one days, in order to render the cure more effectual, take away the stone on the bursten side, and so he will hardly be bursten again on that side; and during the cure, let him neither eat nor drink much, and give him his drink always warm.

STOP; is a pause or discontinuation.

To form a stop, is to stop upon the haunches: to form a stop of a horse, you must in the first place, place the calves of your legs to animate him, bend your body backwards, raise the bridle hand without moving the elbow, then vigorously extend your hams, and rest upon your stirrups, and make him form the times and motions of his stop, in falcading his haunches three or four times.

After stopping your horse, make him give three or four curvets.

The opposite term of stop is parting.

In former times, the stop of a horse was called parade.

Half a stop, is a stop not finished but a pesade; so that the horse, after falcading three or four times upon the haunches resumes and continues his gallop, without making pesades or curvets.

STOPPAGE OF URINE IN DOGS, a distemper which sometimes befals them when their reins have been overheated, which causes in them extreme pain, and often endangers their lives, if a present remedy be not applied, by reason of an inflammation which is caused in the bladder, in which a gangrene will ensue; which will then render the distemper incurable.

For the cure: boil a handful of marsh-mallows, as much of the leaves of arch-angel, fennel-roots, and bramble, whole together, in some white wine, till one-third is consumed, and give it to the dog to drink.

STOTE. A kind of stinking ferret.

STRAIGHT; to part or go straight, or right on, is to go upon a tread, traced in a straight line.

STRAIN. } A misfortune that befals a horse when
SPRAIN. } his sinews are stretched beyond their due tone, by reason of some slip or wrench, by which means their springingness or elasticity is so far destroyed, that they cannot recover their proper tone for some time.

The only practicable method of reducing dislocations in the joints of cattle, is to cast the animal upon his back on a soft bed, and draw up his four legs with pullies; the displaced joint ought then to be extended, with all possible tenderness and care, duly replaced, and bound.

The general cause of those frequent strains in the back sinews, to which horses in *England* are peculiarly liable, is our custom of hard riding; but the extent of the mischief may be considerably reduced, by the improved method of shoeing, which restores to the *flexor* tendons, or main sinews, the intire frog, intended by nature as their cushion and support. In all invisible or uncertain lamenesses, it ought to be an inviolable rule to attempt no random methods of cure, but to turn the horse to grass, a sufficient length of time, during which, he will probably either obtain a cure, or discover the seat of his malady.

In turning lame horses abroad for recovery, special care

care ought to be taken that they are not confined in a narrow place with ſound ones, which may drive and harraſs them about. When the back ſinews are conſiderably let down, and the frog will not touch the ground, it is of great uſe to turn the horſe off in a light bar-ſhoe, the bar reſting upon the ground, and ſupporting the frog and the tendon.

Various Forms of Embrocation for Strains. Beſt vinegar, one pint; camphorated ſpirits, four ounces; white vitriol diſſolved in a little water, two drachms; mix. Or, vinegar, half a pint; camphorated ſpirits, and ſpirit of vitriol, two ounces each; mix.

Take diſtilled vinegar, eight ounces; diſſolve therein one ounce Caſtile-ſoap; add half an ounce ſal ammoniac. Or, ſugar of lead, alum, and white vitriol, one drachm each; powder and diſſolve them in four ounces tincture of roſes, and two of japan earth. This is powerfully aſtringent.

Take the whites of three or four eggs, beat them to froth, add roch alum, finely powdered, one ounce. Spirits of wine camphorated, and of turpentine, half an ounce each, mix.

An Opodeldoc, diſcutient and bracing. Spirits of wine, two pints; *Spaniſh* ſoap, five ounces; digeſt in a gentle heat until the ſoap is diſſolved, then add camphor one ounce; oil of origanum, one ounce. The quantities of camphor and origanum may be increaſed upon occaſion.

Oil of turpentine, one ounce; ſpirit of wine camphorated, two ounces. This from BRACKEN, but I find if conſtantly uſed, the turpentine fetches off the hair; perhaps the addition of a little Barbadoes-tar might prevent that effect; which, in fact, will be changing the turpentine into oil of ſpike.

For enlarged, inflamed, and weakened Tendons. Foment twice a day with decoction of white lily roots, mallows, elder leaves and flowers, bay-leaves, &c. Make a poultice for the parts of the fomentation thickened with meal. The tenſion ſubſided, apply twice a day the *ſalt cataplaſm;* or, common ſalt, whites of eggs, vinegar, and oatmeal, uſing alſo aſtringent mixtures. Or, make two inciſions through the ſkin below the diſeaſed part, being careful not to wound the fibres, or ſheath of the tendon, apply as above, and keep the wound running.

Remedy for Sprains.

Take pitch and tar, ſuch as are uſed for ſhips or carts, a pound; aqua vitæ, a pint; boil them together over a charcoal fire, leſt any flame ſhould touch them, ſtirring them often for a quarter of an hour; then add two ounces of fine bole, in powder; and thicken the whole with flour; put this warm upon tow, and apply it all round the footlock, binding it on; renew it every two days, and there is ſcarce any ſprain that will not be well in three or four applications, provided you dreſs the part firſt with the eſſence of turpentine; the only inconvenience of this remedy is, that it tarniſhes and reddens white or grey hair, and the ſtain appears for ſome time after; however, the remedy is excellent, and in black horſes has no ill effect. It is admirable alſo for blows and ſwellings in the knees and hams; but in theſe caſes you muſt uſe no eſſence of turpentine. What makes this remedy the more to be preferred is, that, though equally good with any, it coſts but a trifle.

If the complaint has been long ſtanding, ſlice three ounces of Caſtile-ſoap very thin, and put it into a pint of ſpirits of wine; let it ſtand in a warm place till it is diſſolved, and then put in an ounce of camphor. When this is likewiſe diſſolved, it will be fit for uſe. Warm a little of it, and rub the place affected every morning and evening.

Theſe accidents are very common, and affect various parts; ſome of which are eaſily cured, and others require a very conſiderable time and care.

We ſhall conſider the ſeveral parts that are moſt liable to theſe accidents, and lay down the moſt proper methods of treating them.

When the ſhoulder of a horſe is ſtrained, he does not put out the leg like the other; but to eaſe himſelf, ſets the ſound foot firmly on the ground to ſave the other. When trotted in hand, he forms a kind of circle with his lame leg, inſtead of putting it forwards; and when he ſtands in the ſtable that leg is advanced before the other.

The firſt thing is to bleed him, and then bathe the ſhoulder thrice a day with hot verjuice or vinegar, with a piece of ſoap diſſolved in it. But if there be no ſwelling nor inflammation, though the lameneſs ſtill continues, let him reſt two or three days, and then bathe the part well with the following liniment, or opodeldoc: Take of *Jamaica* pepper four ounces; of winter's bark, carraway-ſeeds, bay and juniper berries, bruiſed, of each two ounces; of roſemary, marjoram, and lavender flowers, of each one ounce; of rectified ſpirits of wine, three pints: let them digeſt in a gentle heat ten days; ſtrain out the tincture, and add to it Venice-ſoap a pound and a half; of camphor, three ounces; Barbadoes-tar, four ounces: of oil of turpentine, ſix ounces; and of oil of amber, two ounces; let theſe digeſt in the tincture till the whole becomes a liniment.

This is an excellent medicine, and will do wonders in ſtrains, provided the creature have proper reſt, and a proper bandage be added; for theſe will prove of the utmoſt ſervice, and often do more towards a cure, than the moſt powerful medicines.

When the ſhoulder is conſiderably ſwelled, it ſhould be fomented with woollen cloths, wrung out of hot verjuice and ſpirit of wine, which will prove of great uſe, and remarkably facilitate the cure.

STRAINS OF THE KNEES AND PASTERNS. This diſeaſe frequently happens from kicks or blows; accidents that ſhould carefully be avoided. If the part affected be greatly ſwelled, apply the poultice above recommended; and when the ſwelling is aſſuaged, bathe the limb with the medicines mentioned in the foregoing article.

The *French* farriers ſtrongly recommend the following poultice for old ſtrains; and I know from experience that it is a very effectual medicine, and has performed

cures when all others have failed: Take of common tar one pound: ſtir it together over a fire till it incorporates, then add two ounces of bole ammoniac finely powdered, and a ſufficient quantity of oatmeal, to bring it to the conſiſtence of a poultice, together with lard enough to prevent its growing dry: let this be applied to the part affected ſpread on cloth, and renewed twice a-day.

STRAIN IN THE HOCK. Let the part be well ſoaked in cooling and repelling medicines; but if the ligaments are hurt and the injury attended with weakneſs and pain, foment them with the cloths wrung out of hot vinegar, or the decoction abovementioned, with the addition of crude ſal ammoniac, and a handful of wood-aſhes boiled in it. If a hardneſs ſhould remain on the outſide, it ſhould be removed by repeated bliſterings, for which purpoſe the following ointment ſhould be uſed: Take of nerve and marſhmallow ointment, of each two ounces; of quickſilver one ounce, well rubbed with *Venice* turpentine; of *Spaniſh* flies powdered, a drachm and a half; and of oil of origanum, two drachms; make the whole into an ointment, and apply it pretty thick to the part affected, after the hair has been cut as cloſe as poſſible.

For other ſtrains: Take of hog's-lard, nerve-oil, bole-ammoniac, and Caſtile-ſoap, of each half a pound: boil them well together, keeping them ſtirring till the compoſition is cold, and put in a pipkin for uſe; and when you have occaſion, anoint the part afflicted, with this ointment, warm, rubbing it well in.

For a ſtrain newly done: take white-wine vinegar, bole ammoniac, the whites of eggs, and bean flour, beat all theſe into a ſalve, and lay it on the ſore very hot.

For a ſtrain or grief proceeding from heat; beat the whites of ſix eggs with a pint of white-wine vinegar; oil of roſes and myrtles, of each an ounce; bole ammoniac four ounces, as much dragon's-blood, and as much bean or wheat flour (the firſt is the beſt) as will thicken them; make it into a ſalve, and having ſpread it upon hurds, lay it upon the part affected, but do not renew the application till the firſt is grown dry.

For a new ſinew-ſtrain; take bole ammoniac in powder one ounce, of common ſoap four ounces, the whites of new-laid eggs, half a gill of brandy, a gill of white-wine vinegar, and a quarter of a pint of new wort, and half a gill of oil of turpentine; incorporate theſe very well together with your hands, and rub and chafe the thinneſt of it upon the part aggrieved, a hot fire ſhovel being held before it; then daub it all over with the thickeſt in the nature of a charge, or hurds, and bind it up with a linen cloth; and if you ſee occaſion you may renew the charge.

The back ſinews are commonly ſtrained, a misfortune eaſily diſcovered by a ſwelling, which ſometimes extends from the backſide of the knee down to the heel; and at the ſame time, the horſe ſets that leg before the other.

The moſt effectual method of removing this complaint, is to bathe the tendon three or four times a-day, with hot vinegar; and, if the part be conſiderably ſwelled, to apply a reſtringent poultice, made with bran or oatmeal, boiled in vinegar, ſtrong beer, or red wine lees, and a ſufficient quantity of lard added to prevent its growing thick. When the ſwelling is removed, bathe with the opodeldoc abovementioned, or with a compoſition of camphorated ſpirits of wine, and oil of amber; obſerving to roll a proper bandage round the part. Some apply to the part affected, currier's ſhavings wet with vinegar; and others a compoſition of tar and ſpirits of wine: both theſe have been found of great uſe. But an injury of this kind muſt not be expected to be removed immediately; reſt is abſolutely neceſſary; and it would be of great ſervice, if the creature were turned to graſs, as ſoon as the ſwelling is removed, and the other medicines have had a proper time to operate; or,

Put an ounce of *Venice* turpentine into three ſpoonfuls of brandy or ſpirits of wine, ſtir them well together, and rub the ſtrained part well with it, having firſt warmed it over a chafing diſh of coals; repeat this once a day, for three or four days ſucceſſively. If you cannot get *Venice* turpentine, oil of turpentine will do as well.

If the horſe's ſinews are ſo ſtrained, that the limb or member is rendered uſeleſs, take cantharides, euphorbium, mercury, and double the quantity of oil of bays to all the reſt, reduce the hard drugs to a powder, and pound them together with the oil to a ſalve, and apply it to the part aggrieved: and though it makes it ſore, it will give ſtrength and ſtraightneſs to the ſinews.

The ſore may be healed with the ointment of populeum, freſh butter or deer's-greaſe, warm.

A Strain in the Coffin.

If a ſtrain in the coffin joint is not diſcovered in time, the part will grow ſo ſtiff that the horſe will touch the ground only with his toe; nor can the joint be moved by the hand. The only method that can in this caſe be purſued with any hopes of ſucceſs, is repeated bliſtering, and then firing the part ſuperficially; or,

Take hog's-lard, *Caſtile* ſoap and bole ammoniac powdered, and alſo nerve oil, of each equal quantities, boil them together, and keep them ſtirring whilſt they are on the fire; then put the mixture in a gallipot for uſe, and when you uſe it, rub it in well with your hand, and then paſs a hot iron over it: repeat this once a day till the horſe is well.

A charge for the ſame. Take black pitch, *Burgundy* pitch, and common turpentine, of each four ounces, melt them together, and when they are well mixed, lay the charge or ſalve, round the joint, as hot as the horſe can well bear it, cover it immediately with flocks, and when that comes off, lay on another charge if there be occaſion.

STRANGLE IN HORSES, is not, as ſome ſuppoſe, a quinſey, but an inflammation in a horſe's throat, proceeding from ſome choleric or bloody fluxion, which comes out of the branches of the throat veins into thoſe parts,

parts, and there breed ſome hot inflammation, excited by a hard cold winter, or by cold catched after hard riding or labour.

Colts, and young horſes under ſix years of age, are generally the ſubjects of this diſeaſe; and it never returns a ſecond time to the ſame horſe.

It is a hard ſwelling between the horſe's chaps, upon the roots of his tongue, and about his throat, which ſwelling, if not prevented, will ſtop his windpipe, and ſo ſtrangle or choak him.

The ſymptoms attending this diſorder are great heat and feveriſhneſs, a painful cough, with great inclination to drink without being able. Some horſes loſe their appetite intirely, and others eat but very little, occaſioned by the pain reſulting from the motion of the jaws in chewing and ſwallowing.

This diſeaſe, though very troubleſome, is dangerous only when the ſwelling turns upward againſt the windpipe and gullet, when the horſe is liable to ſuffocation, unleſs it breaks ſoon; or when the horſe runs at the noſe, a ſure ſign that the diſeaſe is of a malignant nature, and has affected other parts.

The ſtrangles is not, properly ſpeaking, a diſeaſe of itſelf, but a criſis of others; an effort of nature, which has throw the offending humours on thoſe parts. It therefore follows, that we muſt by all means promote a ſuppuration. This is to aſſiſt nature in her efforts to throw off the load of offending matter, which clogs and diſturbs the animal machine. The ſwellings, therefore, ſhould be kept conſtantly moiſt with an ointment of marſhmallows, and the head and neck covered with a warm hood. The following poultice will alſo be of great uſe in promoting a ſuppuration, and therefore a very proper application in this diſeaſe: take of the leaves of marſhmallows, ten handfuls; of the roots of white lily, half a pound; of linſeed and fenugreek ſeeds bruiſed, of each four ounces; boil them in two quarts of water, till the whole becomes of a pulpy conſiſtence; take it off the fire, and add to it two ounces of the ointment of marſhmallows, and a ſufficient quantity of hog's-lard to prevent its growing ſtiff and dry.

This poultice ſhould be applied hot twice a day, and will greatly facilitate the maturity of the ſwelling; for the matter will be formed in five or ſix days, and open itſelf a paſſage through the ſkin. If the opening formed by nature be capacious enough to admit a free diſcharge of the morbid matter, there will be no neceſſity to enlarge; but if not, you muſt not fail to do it with a knife or lancet.

When the ſwelling is broke, and the orifice of a proper ſize to diſcharge the matter, dreſs it with the following ointment ſpread on tow, but apply over the dreſſing the above poultice, in order to promote the digeſtion, and remove the remains of hardneſs occaſioned by inflammation: take of roſin and *Burgundy* pitch, of each a pound and a half; of honey and common turpentine, of each eight ounces; of yellow wax, four ounces; of hog's lard, one pound; and of verdigris finely powdered, one ounce: melt the ingredients together, but do not put in the verdigris till the veſſel is removed from the fire, and then the ointment muſt be continued ſtirring till cold, otherwiſe the verdigris will fall to the bottom.

Sometimes the fever and inflammation are at a conſiderable height at the beginning of the ſtrangles; in this caſe it will be neceſſary to take away a moderate quantity of blood, and to dilute the remainder with plenty of water-gruel, or warm water, maſhes, and the like.

If the running at the noſe, which, as already obſerved, ſometimes attends the ſtrangles, ſhould continue after the ſwellings are broke, there will be danger of weakening the horſe. An ounce of jeſuit's bark, therefore, or a ſtrong decoction of guaiacum ſhavings, ſhould be given him for ſome time every day, which will have a very good effect in ſtopping their glandular diſcharges, and drying up ulcers of all kinds in horſes.

When the horſe has recovered his ſtrength, it will be neceſſary to purge him; and if any hardneſs ſhould remain after the wound is healed, it may be diſperſed by the mercurial ointment.

The fever may be moderated by cooling and laxative, but not purging clyſters; or by the ſaline powder, as directed in the article, Fevers; but be careful to avoid repellents of all kinds.

As ſoon as the fever is moderated, if there is any diſcharge at the noſe, give one ounce of bark every day, and continue it until the diſcharge is abated; and if any hardneſs remain about the part where the tumour was, rub it every day with the ſtronger blue ointment.

The baſtard-ſtrangles is a ſlight degree of the true ſort, in which the horſe is reſtleſs, feveriſh, and will lay down very often, but ſoon and ſuddenly ſtart up again. Sometimes this name is given to ſwellings in old horſes about the lower, and ſometimes the upper part, betwixt the upper jaw-bones, which ariſes from a poor, bad habit of body, frequent colds, and hard uſage.

But if it ſhould happen to break inwardly, then perfume his head twice or thrice a day, by burning frankincenſe or maſtich under his noſe, or elſe by putting a hot coal upon wet hay, the ſmoke of which let him receive up his noſtrils; or with a red hot iron thruſt a hole through the ſkin on both ſides the weaſon, and after it has begun to matter, mix butter, tanners water, and ſalt together, and anoint the ſore every day till it is whole: bleeding in the mouth is alſo very good for this diſtemper.

Mr. Lawrence ſays the ſtrangles is a well-known diſeaſe, which attacks moſt colts, and, according to Gibson, uſually upon their being firſt put to labour, terminating in a critical abſceſs under the jaws.

The old *Engliſh* term for this diſeaſe, was the *ſtrangullion;* and Blundevil, after Laurentius Russius, and the *Italian* writers, compares it to the *Cynanche* or *Angina* of the human ſpecies, giving of it, however, a very lame and imperfect account. Solleysel ſtyles it a northern diſeaſe, and compares it with the ſmall-pox, as thoſe before him had compared it to the quinſey, and if no doubt bears analogy, in many reſpects, with both diſeaſes. It is one of thoſe ſpontaneous efforts of nature,

ture, to disburden herself of a superflux of humours, which is final, and does not recur; as to the vives, to which aged horses are subject, they either bear no relation to the strangles, or this latter disorder, in age, makes a different appearance. The matter of the strangles is contagious in a certain degree, since a country farrier propagated the disease by inoculation, and wrote a pamphlet to recommend such unnecessary practice.

The authors to be consulted in this case, are GIBSON and BRACKEN, all our other writers, without reserve, having merely copied them: those who may find it convenient "to sink a tedious hour in the serious task of criticism," may refer to Mr. TAPLIN on the strangles; where that most unfortunate of critics, like a true Signior Apundator, or Knight of the Pestle, has supposed that *comminuted*, must necessarily and exclusively mean, *pulverised!*

Although the strangles commonly attacks young horses on their being first brought to labour, and the nourishing diet of the stable, at least before they arrive at five years; yet I have both known unbroke colts seized with it in the fields, and horses which have escaped it during their lives. Among colts at grass, it has probably been sometimes contagious. It is the custom to suffer a colt to run it off at grass; but I should much rather prefer the taking him up instantly into warm keep, and proper care, lest the discharge should be checked by the repulsive property of the cold air, and a part of the disease, from insufficient solution, be left in the habit to re-appear in time, under the guise and denomination of vives. BRACKEN seems inclined, under some circumstances, to repel the strangles; but those only in which it could possibly be safe practice, in my opinion, are, when the tumour or tumours are small, phlegmatic, and disinclined to suppuration. They may then be treated with repellents as the vives, alterative or purgative medicines being joined. This is no very uncommon case even with colts.

The signs of the approach of this disease, are thrusting out of the nose, hoarse cough, feverish heat, hot breath, heavy and languid eyes, difficulty in deglutition. A swelling appears between the jaw-bone, increasing daily until the fifth or sixth day, when the imposthumation breaks, discharging a large quantity of matter. In this favourable case, nothing more is necessary than to clothe the head well, anoint the abscess twice a day with an emollient ointment, and perhaps to enlarge the orifice, in a small degree, when the matter first appears, and to heal afterwards with camphorated spirits. In the interim, the horse's diet should be soft and warm, with warm water, or white water, plenty of gruel, and the salts as occasion may demand.

Should the disorder arise upward among the glands, and divide itself into several tumours, which maturate at different periods, the progress and cure may be tedious: but when the abscess is formed above, nearly about the head of the windpipe, there is a degree of danger, since it may prevent a horse from swallowing for several days; and if suppuration be long delayed, a suffocation may ensue. In this situation the eyes will be fixed, and the nostrils dilated, as in convulsion. Running at the nose is looked upon as an unfavourable symptom. Sometimes the swelling arises on the inside of the jaw-bone, when it is a considerable time in coming to maturity; and the discharge must be evacuated by the mouth.

When it is necessary to promote suppuration by art, unguents and warm fomentations, used three or four times a day, are preferable to poultices in this respect, that the latter are apt to become cold, and by their repelling effect in that state, to undo all the good they may have previously done; a difficulty I have often experienced: but if the attendant will take the pains of replacing the poultice, the instant they lose the necessary degree of heat, there is no method half so efficacious. Receipts for poultices, embrocations, unguents, and preparations of various kinds, will be found by a reference to the different articles.

Should the discharge proceed by the mouth, cleanse frequently with equal parts of best vinegar and spirit of wine, or brandy, diluted a little with water, and sweetened with honey. Wash the nostrils with the same, paying all possible attention to cleanliness. Use no premature attempt to open the abscess, but should nature be too tardy, a depending orifice may be made, not too deep, with a lighted candle, or preferably with a small pointed cautery. If the fever run too high, bleed once; should it become hectic and malignant, give the fever-drink; and in case of much discharge from the nose, that the horse appears weakened, the bark with red wine will be the best restorative; or strong decoctions of guaiacum, rendered palatable with raisins, figs, and honey, a quart a day for a week or two. Indurations of the glands remaining after the cure, will be best dispersed by strong mercurial unction, keeping the horse safe from cold, and mild mercurial physic. In the same manner the vives are to be treated.

In this disorder, mashes must be the constant food, in small proportions, to prevent waste; in each of which Mr. TAPLIN directs to put of liquorice and aniseed powders, half an ounce, and about two ounces of honey, or, in lieu of this last, a quart of malt. The drink, consisting of warm water impregnated with a portion of scalded bran or water-gruel, should be given in small quantities, and often. The head must be kept well covered with flannel, as the warmth will greatly tend to assist in promoting the necessary discharge; though, unless circumstances and weather forbid, the horse need not be confined, but should have the advantage of air and gentle exercise. Nor should regular dressing, and the accustomed course of stable discipline, be omitted, but only used in a less degree than when in health. This distemper is seldom dangerous, unless from neglect, ignorant treatment, or cruel usage. It generally terminates with a running at the nose, in a greater or less degree; which should be frequently cleansed from the inside of the nostrils, by means of a sponge sufficiently moistened in water, to prevent its acquiring an adhesion to those parts, or a foulness and fetor that would shortly become acrimonious.

If a hardness remains after the sores are healed up, they may be anointed with the following mercurial ointment:

ointment: Take of crude mercury and quickſilver, one ounce; *Venice* turpentine, half an ounce; rub together in a mortar till the globules of the quickſilver are no longer viſible; then add, by little and little, two ounces of hog's-lard, juſt warm and liquified; and let the whole be cloſe covered for uſe. When the horſe has recovered his ſtrength, purging will be neceſſary.

If a copious and offenſive diſcharge from the noſtrils ſhould continue after the abſceſs is healed up, there will be reaſon to ſuſpect the diſeaſe called the glanders, treated of in the laſt article. A certain author ſays, "If a large tumour ſoon appears, the diſeaſe will eaſily be conquered, and a laſting cure may be expected; but to begin the cure it will be neceſſary to make a cataplaſm or poultice: ſpread it upon ſome coarſe cloth, and ſew it tight about the ſwelling with a packing needle and twine."

Take leaves of mallows and of marſhmallows, of each ſix or eight handfuls; two pounds of white lily roots; linſeed and fenugreek, in powder, of each one pound; and half a quartern of bran: boil them all together in a ſufficient quantity of water till they are ſoft, then beat them up together and boil them again to a thick poultice; apply this warm, night and morning, after ſtirring a pound of hog's lard into it. When the matter comes forward, the tumour is to be opened, and the matter ſqueezed out; but the ſame kind of poultice to be conſtantly and regularly applied warm; and in a few days the whole will be run off.

"Bleeding and purging muſt be omitted till the matter is all entirely drawn away by the above cataplaſm; after which give him the following cathartic once, twice, or three times:

Take jalap and aloes, in powder, of each ſix drachms; ſal polychreſt, two ounces; ſal diureticus, half an ounce; buckthorn ſyrup, two ounces and a half; mix them together into a ball for one doſe. It may be repeated every fourth day, for three times, if the horſe is not too weak to bear it.

Warm maſhes, from the time the animal is taken ill till the humour is diſperſed, ſhould not be neglected; and warm water to be given to him the day he takes the phyſic.

Another receipt. Take marſhmallows, groundſel, chamomile, and hart's-tongue; bray them with an equal quantity of ſmallage, and fry the whole with hog's-lard; ſo, being very hot, apply it to the place, which ought to be under the caul, and it will mollify the ſwelling, and by degrees remove the obſtruction of the paſſage. Then take roche-alum, honey, and the white excrements of a dog, and diſſolve them with brown ſugar candy in a quart of milk; give it him hot, and ſo continue doing for a week, morning and evening; renewing likewiſe the poultice once a day.

STRANGURY, } IN HORSES, a diſtemper to
STRANGULLION, } which they are incident, which may be known by the horſe's having an inclination to ſtale often, and yet voiding only a few drops.

This may happen to a horſe various ways; ſometimes by hard riding, or much labour; ſometimes by hot meats and drinks, and ſometimes by an ulceration of the bladder, *&c.*

The firſt application neceſſary is to bleed largely, and after the operation give the following drink, and repeat it two or three times every two hours: Take of *Venice* turpentine, well rubbed with the yolk of an egg, one ounce; of nitre, or ſalt prunella, ſix drachms; of ſweet oil, half a pint; and a pint of white wine.

The horſe ſhould have plenty of marſhmallow decoction, with an ounce of nitre, the ſame quantity of gum arabic, and two ounces of honey diſſolved in every quart of it: for it muſt be remembered, that the more a horſe drinks of this emollient decoction, eſpecially when improved with nitre, gum arabic, and honey, the ſooner he will recover; as it will greatly tend to remove the cauſe of the diſeaſe, and conſequently to terminate its effects.

Some bathe the horſe's loins with warm water, and then tempering bread and bay berries with butter, give him two or three balls of it for three days ſucceſſively. Or,

You may uſe powder of flint-ſtone calcined, mixed with an ounce of the powder of parſley-ſeed, and as much of that of ivy-berries, and boil them a little in a pint of claret, and give the horſe, and it will do. Or,

A quart of new milk, and a quarter of a pound of ſugar, brew them well together, and give it to the horſe to drink in the morning faſting, and keep him warm. Or, boil a good quantity of hog's fennel in the water you give him to drink, and it will cure him.

The following poultice applied acroſs the loins, over the kidneys, hath been followed by good effects:

Take a handful of garlic, freſh-gathered; of muſtard-ſeed and freſh horſe-radiſh root, bruiſed, each half a pound; camphire, two ounces; green ſoap, enough to give the whole a proper conſiſtence; ſpread it on a coarſe cloth, and renew it every twenty-four hours until the horſe ſtales eaſily.

STRAPS OF A SADDLE; are ſmall leather ſtraps, nailed to the bows of the ſaddle, with which the girths are made faſt to the ſaddle.

STRIKE A NAIL; is to drive it through the horſe's ſhoe, and the horn or hoof of his foot; and to rivet it for holding on the ſhoe.

STRINGS, OR LINES, devices wherewith to take birds, both great and ſmall, and even water-fowl; they are made of long ſmall cords, knotted here and there, and containing in length as many fathoms as the places or haunts where you are to lay them require: theſe are of great uſe in taking of all ſorts of large wild-fowl, as alſo for plovers of both kinds.

When you are to uſe theſe ſtrings, they muſt be limed with the ſtrongeſt bird-lime; when coming to their haunts, if it be before the evening flight, it muſt be before ſun-ſet; if for the morning-flight, at leaſt two hours before day; and having a bundle of ſmall ſticks, about two feet long, ſharpened at both ends, and with a little fork at the upper end, let them be pricked a little ſlant-wiſe, ſo that they may be within a foot and a half of the ground; then ſhall theſe lime-twigs be drawn and laid upon the forks, ſome rows higher than others,

others, and higher in one place than another, like water waves, till every row be filled, and the haunt covered all over; then faſten the end with a ſlipping loop, in ſuch manner that upon any violent ſtrain the whole ſtring may looſen and lap about any thing that touches it, and by this invention great numbers of fowl, eſpecially plovers, may be taken, by reaſon of the great flocks they come in, and they are generally taken at their coming upon the ground, whoſe nature it is to ſweep cloſe, and ſo falling amongſt the ſtrings, are taken.

There is no need you ſhould be conſtantly at watch, for being entangled they cannot looſen themſelves; when you have done your ſport, lay them up for another time, only you muſt new daub them with freſh bird-lime: you may make uſe of theſe ſtrings and lines for taking water-fowl, and then uſe the beſt and ſtrongeſt bird-lime you can get, theſe ſtrings being laid over the rivers, ponds, or plaſhes of water where you deſign to take any, which muſt be in ſuch places where their haunts are, and let the ſaid ſtrings almoſt touch the water, and be as thick laid as before directed for land-fowl; and this caution muſt be carefully obſerved, not to uſe ſuch ſtrings in moon-ſhiny nights, for the ſhadow of the light will certainly create a jealouſy in the fowl, and ſo ſpoil your ſport. *See* SPRINGS.

STRING-HALT, IN HORSES, an imperfection, which is a ſudden twitching or ſnatching up his hinder-leg, much higher than the other; to this the beſt mettled horſes are, for the moſt part, more ſubject than others.

It ſeizes them after a ſudden taking of cold, after hard riding, or ſore labour: eſpecially by waſhing him while he is hot, which chills his blood, and ſo benumbs his ſinews, that it will ſometimes take away the ſenſe and feeling of a limb.

For the cure: Take up the hinder vein upon the thigh, and underneath the ſame there lies a ſtring, which you muſt cut away, and then anoint him with butter and ſalt, and he will go well.

Some uſe a particular ointment for this purpoſe, prepared as follows:

Take oil of worm, nerve oil, oil of petroleum, of ſpike, of piece or patch greaſe, of each two ounces; of *London* treacle, four ounces; of hog's greaſe, two pounds; ſet all on the fire, and when they are melted, take them off, and keep ſtirring it till it is cold, and with this anoint the part affected every day, and bind him with a ſoft thumb-band, from the paſtern to the top of the hoof; repeat this for ten days together, rubbing and chafing in the ointment very well for a long time, holding a red-hot fire-ſhovel againſt it.

The keep the parts warm, litter the horſe well, and make the thumb-bands leſs and ſhorter every day, till you perceive the horſe to ſtand on both legs alike, and be recovering: but he muſt not yet be ridden, ſo as to ſweat much, for a month after: and as ſoon as warm weather comes on, put him to graſs in ſome dry paſture, where he may not want water, but let him be taken out again before cold weather comes, and while he is in the ſtable let him be kept warm, and ſo he will be free from the ſtring-halt.

STUB. A ſplinter of freſh-cut under-wood, that gets into the horſe's foot when he runs, and piercing the ſole through the quick, becomes more or leſs dangerous, according as it ſinks more or leſs into the foot.

STUD. A place where ſtallions and mares are kept to propagate the kind, or elſe the word ſignifies the ſtallions and breeding mares themſelves; it is abſolutely neceſſary there ſhould be a ſtud, if you would have an increaſe of the horſe kind; the goodneſs of horſes depend partly on the goodneſs of the ſtud, and their good feeding when they are but young: fine ſtallions, and fine breeding mares, generally produce fine and good colts, which will always continue ſo, if they are well and carefully fed.

Under this head it is not propoſed to ſpeak of any ſort of breed of horſes, but ſuch as are deſigned for labour and draft, and therefore without mentioning thoſe of a great price, and ſuch as are deſigned for the uſe of perſons of the firſt rank, we ſay that a ſtallion for this end ought to have a good coat, be well marked, vigorous, and very courageous: care muſt be had that he have none of the diſtempers upon him that are hereditary, for the foals will certainly be ſubject to the ſame: he ought to be of a docile nature, and he ought not to be made uſe of for covering of the mare before he is ſix years old, for if he is too young he will deceive them.

A good coat is as eſſential to the mares as to the ſtallions; they ſhould be well made, and as near as poſſible to the ſame mein and ſtature as the ſtallion; they ſhould have ſprightly eyes, and be well marked: they ought not to be covered till they are three years old, and then may continue to breed till ten; they ſhould have but one foal in two years, that they may have time to nouriſh and breed them up.

About a month or two before the ſtallion is turned to the mares, he ought to be fed with good hay and good oats, or wheat-ſtraw; and he muſt not be put to any manner of labour, only be walked backwards and forwards, from time to time, for two hours every day; you muſt never give him above twenty mares to cover, unleſs you would deſtroy him outright, or make him broken winded; and he will continue to propagate his kind from the age of ſix to ſixteen years.

The month of *May* is the uſual time wherein mares are to be covered, to the end that they may foal in *April*, for they go eleven months, and as many days over as they are years old: and the reaſon why this month is pitched upon, is, becauſe when they foal the following year there will be plenty of graſs for them, and conſequently they will have milk enough to nouriſh their young.

It need not be wondered at, that in a ſtud methodically managed, the mares fail not to produce foals, ſo much as thoſe which are brought to the ſtallion, without uſing theſe precautions which are neceſſary for ſuch an action; for how many perſons are there, who as ſoon as the mares come from their labour, take and lead them to be covered, by which means they are very often diſappointed: if you would have your mare keep, you muſt ſuffer her to run for about eight days in good paſture, and then let the ſtallion cover her once

once or twice the same day, if he be inclined so to do; and after she is covered let her be conducted to her pasture, and there continue her for four days, after which you may work her, but with much moderation at the first.

It is a thing worthy to be observed, and what the countrymen ought positively to know, whether the stallion he would have to leap his mare, is fed with dry meat in the stable, or on grass in the fields; if he is at grass, and the mares are fed with dry meat, or if he is fed in the stable, and that the mares are at grass, their mares will run a great hazard of casting their foals, or not conceiving at all, which will seldom happen, if used to the same manner of feeding with the stallion.

Before you suffer your mare to be covered, hold her in your hand, and for a short time in the sight of the horse, so as she may also look upon him; this will animate her very much, and cause the stallion to cover her with the more vigour, and be a means to make her keep the better; to bring about this generation work you ought not to have your mare covered but when she is ripe for it; and in order to which give her a peck of hemp-seed for eight days successively, morning and evening, and in case she will not eat them alone, mix them with her bran and oats, or else keep her fasting, that so hunger may bring her to eat them without any mixture.

A mare must never be carried to be covered, whilst she gives suck to her colt; and that she may last so much the longer, she must not foal, as has been observed, above once in two years; but for as much as these rules are unobserved by many, and that they will obstinately have their mares covered almost as soon as they have foaled, they ought not to do it till eight days are past, and even then they ought to use all manner of means that she may have an inclination thereto.

Some persons in treating of this subject, have observed that in order to have male colts, you need do no more than to let your mares be covered between the first day of the new moon, and the full, and that they cannot fail in their expectations herein, provided the mare has a good appetite to be covered; but M. Chomel makes very slight of this notion, and gives no manner of credit to it.

When your mares have been covered, you must set down the day, to the end you may avoid the inconveniences that may happen when they come to foal, for they often kill their foal, either out of inadvertency, or the difficulty they undergo in foaling, and therefore when the day comes wherein they are to foal, you should narrowly watch them, and see whether they want any help to bring forth, either by stopping their nostrils or otherwise, making use of your hand to facilitate their foaling.

The mare sometimes foals a dead foal, in which she runs a great hazard of her life, without present remedy; and therefore to help her in this condition you must bruise some polypody in a pint of warm water, and make her swallow it; and if this will not do, there must be a sort of midwifery practised, and the foal pulled from her, not only upon this occasion, when no part of it is come out, but even when the feet appear.

When the mares have foaled, they must need have suffered much, and thereby must be much abated, and if they are not quite gone you must endeavour to keep them, by giving them presently a small mash of three pints of warm water, wherein you must steep some meal, and into which you must throw a small handful of salt, and this you are to continue three days, morning and evening, and then turn them into good pasture.

The same author exclaims much against those who in two or three days after the mare has foaled, put her to work, as if she was then in a condition to bear any fatigue; let them urge what pressing reasons they please, he accounts them murderers of both mare and foal; of the mare by putting her strength to such a trial, and of the foal, who finding not a sufficient quantity of milk for his nourishment, comes on but very slowly; and therefore those who would have their mares to be always in a good condition, after foaling, and have the foal grow up to their entire satisfaction, must make use of a quite contrary method; or else they should never have their mares covered, unless they allow them a month's rest at least after their foaling.

As to the time of weaning foals or colts, authors differ in their opinions; some hold that it ought to be done in the beginning of winter, when the cold weather begins to come on, and about *Martinmas*; others maintain, that they should be suffered to suck all the winter, and that they will be the better for it. Those who are the best skilled in studs, embrace the latter opinion without any hesitation, who say, that to wean the foals so soon, is the way to make them unserviceable till they are six or seven years old; whereas if you suffer them to continue longer with their dams, it will harden their mouths, and consequently inure them the sooner to live upon dry food, than when they are too tender; a right management of them in this respect, will make them fit for service at three or four years. There are those who hold it proper to let the foals suck till they are a year or two old, but this is abuse, for you are not only thereby deprived of the fruit of the mares, but this practice will also make the colts very heavy and sluggish.

As to the method of managing the colts after they are weaned from their dams, as before directed, you are to put them into a stable, which should be kept clean, and where the manger and rack is low; you must not let them want litter, and contrary to the method practised in reference to horses, they must not be tied, and let them be touched as little as may be, for fear of hurting them.

Let them neither want good hay, or bran, which will provoke them to drink, and consequently make them belly, and let them have oats also as usual. It may be justly affirmed, that all those persons who say that oats ought not to be given to colts, for fear it should make them blind, are egregiously mistaken; and should they happen to fall under this inconvenience,

ence, when they are fed therewith, the misfortune does not proceed from this food, but from the over hardness of the oats which they would chew; and not being able to do it without some difficulty, they so far extend the fibres which pass from their teeth to their eyes, that coming at last to break, the sight must necessarily be damaged thereby; and for the truth of this, you need only grind the oats a little, and give it them, and you will find they will be in a good condition, and have as good eyes as any in the world.

What has been here advanced, will appear almost extraordinary to some persons of the like sentiments with those we have met with in the world, who when they have weaned their colts, content themselves to keep them day and night at grass, thinking this sort of nourishment will be sufficient to make them grow finely, and be fit for service in due time; but they very much impose upon themselves, as they would do upon others; for fatal experience has shewed them, though they have not owned their mistakes, that these colts will never be so strong for draft, or otherwise, and will not do as good service as those that have been fed with corn.

It is true, that when colts feed upon grass, their teeth are usually set on edge, and for that reason they eat their oats with difficulty, but this is no reason they should be deprived of it: you need do no more than to grind them as aforesaid, and to let them have the oats so at the usual hour: again this work will be of no longer duration than until their mouths are hardened, which will not be above four months, when, by degrees, they may be used to eat the oats whole.

Let such persons who have hitherto been guilty of these mistakes amend them, as being quite contrary to the good of their colts; it is true, grass is good for them all the summer long, but you must not omit to give them corn; and when winter comes, they must be kept warm in the stable, and observe the directions aforesaid.

As to the manner of bringing up colts to work, you are in the first place to consider, that so much cannot be expected from a young colt, as from a horse that has been used to labour: the first is naturally apt to refuse you that which he does not know you require of him; whereas the other complies, because he understands your meaning; some with as little understanding as the colts themselves which they manage, use them very roughly to bring them to obey them; but others with more prudence, teach them gently what they would have them learn, and it is this mild way that will do to bring them to.

The first time of harnessing them, keep them in, for fear if they should get loose, they might use some effort to drag away the load, which must be heavy; for should the same be too light, you may have reason to be apprehensive, lest they should draw with too much precipitation; having thus harnessed him three or four times, he will begin to come to.

In the next place make the colt draw a small load but a little way, and never let go the halter, and thus taming him a little one day, more the next, and so on, you may manage him so, that he shall be entirely accustomed to the work.

A good servant who is dextrous at his business, whether it be at ploughing or cart, after he has made his colts feel his whip several times, will afterwards fright them more with his voice, than with blows, and will be careful never to over-burthen them, and make them draw beyond their strength, especially at the first, for it spoils them at once; whereas by giving them breath, they will go on well, and perform regularly the work they are put to; that is, such works or drafts as are proportionable to the age and strength of the colts.

Lastly, it will be necessary in the breeding of your horses, to consider the commodiousness of the place, and the pastures where your horses, &c. are to run; for those that breed them in a place unfit for it, lose their money and their pains, and never will have good horses: the ground must not be too rank of grass nor too bare, but a firm and sweet soil, situate in a clear and wholesome air, where there are hills and running waters, with quick-sets and spreading trees to shelter them from the wind, rain, and sun; nor must they be continued always in the same pastures, but often removed into fresh, observing still to put them into the shortest feedings in summer, and the richest in winter; at which time of the year they must have a hovel, or hay-rick, or some convenient place to shelter them from the weather.

Further directions in relation to a stud for other strains: the place appointed for this purpose must by all means be disposed with hills and vallies, that the colts or fillies may be the better used to the diversities of ground and feed: also an especial regard ought to be had to the health of all breeding mares; for some distempers are hereditary, and the offspring from such will necessarily receive it, as well as the imperfections of either sire or dam, in their colour, shape, or merit.

There is nothing destroys or injures a race of any kind, so much as the want of due care, in providing the principles from which the offspring should come.

When a stallion is to be chosen, all men of understanding in horse-flesh recommend beauty of limbs, good courage, and the age to be about five years for the horse, and the same perfections in a mare; but she may be a year younger than the horse.

Some depend much upon colours; as for example, those that are black, they say are of a hot and fiery temper and disposition: those of a sorrel colour are more wanton, and disposed to venery: the chesnut and brown bay, are reckoned to have strength and spirit: the white are always reckoned tender, and as much subject to venery as the sorrel, and for this reason it has frequently been observed, that in coupling of horses with mares of these colours, the mares have slipped or failed in their productions.

As to greys, it has been observed, that those which tend the most to black, are stronger than the brighter greys.

There are besides these, other colours in horses, as the

the roan, which seems to be the offspring of the bay and white, or the bay and grey.

The sorrel and white, seem to be the authors of the dun and cream colour; and as for those horses which are called flea-bitten, or strawberry, they probably proceed from a coupling between a bright grey and a bay, and perhaps have suffered much in their younger time by ticks, especially if they have been neglected upon the forest, among woods, or have not been taken up till they were three years old.

There are also some horses mottled or red, (commonly called pye-bald) either black and white in spots, or chesnut and white.

How this accident happens, is one of the most curious questions among philosophers, and a certain ingenious naturalist hath attempted to resolve this nice question; but as from one case in nature nothing can be determined, he therefore has recourse to other subjects, which seem to him to be nearer allied, and instances in the several cases following:

A variegated or striped plant, he takes to be something like the pying or spotting of a horse, or any other cattle, and that it may (as some imagine) very probably proceed from the like cause; or the white in the feathers of fowls.

The question then is, whether the white in the hairs of beasts, or feathers of fowls, is not a sign of weakness, as the colour certainly is when it appears in the leaves of plants?

If it be, then all horses or cows, that happen to be of a white colour, would be weak in their joints, or be somewhat distempered from some indisposition in the bodies of their progenitors. But this is not yet determined.

It is therefore necessary to be careful in examining into the descent of a horse and mare, from which you design to have a breed.

One thing, which he thinks might come near towards a solution of this question, would be to inquire into those families where black men have coupled with white women, or white men coupled with black women, in order to know if the father was black, whether the child was of that colour, or whether the child was black, if the mother was of that colour.

And, moreover, whether the cross strain will not produce sometimes white, and sometimes black children; or sometimes those of a tawny colour or mulattoes; as also it would be requisite to know, whether black children in two or three generations, do not produce children of a tawny or olive colour; or whether the offspring of the blacks with the whites, instead of wool, do not bring long black hairs on their heads, or perhaps white hairs, and a tawny complection.

He imagines that the people of *Barbary*, and of all the coasts of *Africa* lying opposite to *Europe*, are of the olive colour, from the coupling between the *Moors* and *Europeans*, while they were endeavouring to make their progress into *Europe*, but in *Spain* especially; for there are found upon all the *African* side of the *Mediterranean*, a people of the mulatto complexion, some of them with very black beards and hair; and others very white, as most people about *London* observed instances of in the ambassadors and their retinue, in the year 1728.

One remarkable subject relating to the case is, that some years since a person was brought over from the *West Indies*, who was pyed in his skin white and black, and it is supposed that this man was the offspring of parents who were of different colours, the one white and the other black.

But to take a little further notice of the various colours in animals, such as the mottlings and spottings of all creatures in their hair, feathers, *&c.* they seem to be occasioned by cross couplings. For (says this author) I know a gentleman near *Farnham* in *Surry*, who had a breed of white kine for many years, without any cross colour mixing with them, and these to this day produce calves of the same colour.

And another gentleman had a breed of white fowls for about forty years, that has not once shewn the least discoloured feather.

He informs us likewise, that himself had a breed of white pheasants, which till they came to be mixed with pheasants of the common colour, always produced poults of a white feather; and as soon as they brought young ones from the cross couplings, the breed was altered, and the feathers of the young fowls did partake of the common colour, as well as of the white; *i. e.* they were generally mottled or pyed, unless now and then all white, according (as he supposes) as the white pheasant cock had been the impregnator of an egg, which he supposes he got at with some difficulty; for the common pheasant cock was master of the pheasant pen, and used commonly to drive the others from the pen.

Again, those who breed *Canary* birds know very well, that when they begin with a white cock and hen, they will not have birds of any other colour, unless they couple those with others of the common colour.

In like manner in warrens first stocked, either with all white or all black rabbits, the breed will be accordingly either all white or all black, unless they come to a cross coupling.

So also pigeons which are of a white feather, will produce a breed of the same colour constantly, unless they couple with pigeons of other colours, and then they will produce a mottled race, or such as are of a mixed colour.

The same author tells us, that a gentlemen of great curiosity and candour, assured him, that for more than eighty years, there had not been any other than white horses belonging to his family, except such as were bought in from other breeds.

That the originals of his race were a white horse and a white mare; which at the time of their coming into his stud, were accounted great beauties.

And that a gentleman, a neighbour to the foregoing, had his stud furnished, many years before, with horses and mares of a black colour, and that keeping his breed constantly without mixture of any other colour, the offsprings are all black like the sire and dam.

The same author instances in the variegated or striped

jessamin among plants, that if the white is on the edge of the leaf, that colour and disposition will never be lost in any that are raised from it, but every one will be like the original plant.

Again, that if the common jessamin happens to be strained with yellow on the leaves, or pyed or spotted with that colour, (which is what the gardeners call a blotch or bloch) all the descendants of that plant will be the same.

He likewise informs us, that a certain curious gentleman stocked a pond with tench, partly from a running water, and partly from a fenny water, and in some course of time he had a mottled breed, between the black and the gold colour; the river tench being generally of a bright and golden colour, and those of the lakes of a darker colour, and tending to black.

An author of good credit, treating of the mixture of breeds in cattle, and especially in horses, advises, with a good deal of reason, to take care of the good qualities of the horse and the mare.

He says, that an ill-bred horse may beget a colt that may have a fair colour and shape, appearing beautiful; he may also be strong and vigorous, but of a vicious disposition, which may render him incapable of ever being brought to rule, without half destroying him.

Sometimes the fault of a colour is corrected by a sort of dyeing or staining, which art some of our jockies have got, especially upon greys, whites, and duns; and some noblemen who have employed some country people to buy them horses of a certain standard in body, colour and mark, to match with their sets, did in a few months, when the horses had shed their coats, find greys and other colours instead of blacks.

It is true, that we cannot say that the dyeing the hair of horses will do the horses themselves any harm (for that they have been healthful and strong, long after they received their original colours) any more than that chymical water used by persons to change the natural colour of the hair from red to black (which is frequently practised) does injure their heads.

As to the choice of a stallion, a person of great skill says, that the dapple bay, the bright bay, and the dapple grey, are to be preferred; but does allow of a horse of a pure black, provided he has a white star, and a white foot; but in the judgment of others, he should be all of one colour.

We find in many cases, that horses of a bright bay colour, with a black mane and tail, are good as well as beautiful, and these have commonly the tips of their ears, and the extreme parts of the legs, black: it is also common for a dapple bay to have a white mane and tail, with the former mentioned extremes white, such as the tips of the ears, and the extreme part of the legs: but for other coloured horses, except the dun, we seldom find their manes and tails of a colour different from that of the body; but in a dun horse the long hair in the mane and tail is commonly black, and for the most part there is a black list down the back, which is not a little remarkable, as it is not observed in any other creature except the ass or mule, that I know of.

In a horse indeed it is only a plain straight list, but in the ass there is always a cross stroke of black over the shoulders, so that if the skin was to be opened and spread, the black would exactly represent the figure of a cross, as it is represented in paintings or carving for a crucifix.

Some pretend to tell us, as to the cross upon an ass's skin, that asses were not thus marked before the Christian æra, and that none are without the sign; but upon what good authority they assert this, I know not.

Some are of opinion that the black list down the back, is a token of strength, because the ass that is marked with it is accounted the strongest creature in the world among animals, according to his size.

And for this reason asses are used for carrying heavy burdens, and drawing heavy loads.

If this list then is a mark of strength in an ass, we may well suppose it no less so in a horse; and likewise we may judge it is also a sign of strength in mules, and as they are produced by couplings between the horse and the ass, we may well suppose that this list, generally speaking, comes from the ass.

In the choice of a stallion, great regard should be had to his age, which some say should not be under five, nor above fourteen or fifteen when he covers a mare; for during that time a horse is in full strength, and it is therefore reasonable to conclude, that colts got by him in his prime, will likewise share his vigour.

Indeed it is no unusual thing in several parts of *England*, to let a horse cover a mare at two or three years old, but such couplings seldom succeed well; for in the first place they are apt to fail or miscarry, if either the horse or mare is so very young, and sometimes the mare is entirely spoiled for breeding; or if she does happen to bring a colt or filly from such a coupling, it will never be either of large stature, or of great strength.

Nor should horses be put to cover mares till they are six years old, lest the colts got by them should be liable to the same imperfections as those that are got by too young horses.

Mares indeed will breed till thirty-five years of age.

An horse that is kept for a stallion, will be fit to cover mares the longer, the less service of that sort he is put to.

A certain gentleman affirmed, that a stallion of an extraordinary sort, which his family had kept above thirty years to serve only about four or five of his own mares, was then in as good plight as ever, while other stallions about him, which had been let out to any body that wanted them, were incapable of this service at twenty years with certainty, and that if the leap was certain, the colts surely failed in their eyes.

STUMBLING IN A HORSE, comes either naturally or accidentally, and is known by the sight and feeling, by reason that the fore-legs are somewhat straight, so that he is not able to use his legs with that freedom and nimbleness he should. The way to cure him is, to cut him the cords; that is, to make a slit upon the top of his nose, and with your coronet raise up the great sinews; then cut them asunder, and heal them up again with some good salve, whereby he may

may have the use of his legs so perfectly, that he will seldom or never trip more. Such as comes accidentally, is either by splent or wind-gall, or by being foundered, pricked, stubbed, gravelled, sinew-strained, hurt in the shoulder, or withers, or by carelessly setting him when hot, which makes him go very stiff, which stiffness causes stumbling.

SUMPTER HORSE. A horse that carries provisions and necessaries for a journey.

SUPPLE, to supple a horse in the manage, is to make him bend his neck, shoulders and sides, and to render all the parts of his body more pliable.

SURBATING IN DOGS, a malady with which they are often affected, being surbated in their feet, by running long in hot weather upon hard, dry, uneven ways, among rocky and sharp gravels.

For preventing this, their feet are to be frequently examined, and if their feet are become sore, they should be washed with beer and fresh butter lukewarm, and then a sort of salve made of young nettles chopped small, and pounded into an ointment, should be bound to the soles of their feet.

Also soot finely powdered, and incorporated with the yolks of eggs, and applied to their feet, is very good, or the juice of mouse-ear is also very good for the like use.

SURBATING IN HORSES, an imperfection.

An horse is said to be surbated, when his sole is worn, bruised or spoiled, by travelling without shoes, or being badly shod; sometimes it comes by a horse being travelled too young, before his feet are hardened, which often causes foundering; sometimes it is caused by the hardness of the ground, or the horse's lifting up his feet high; and those horses that are flat hoofed, have their coffins so tender and weak, that they cannot avoid being subject to this disorder.

The signs of this imperfection are, that the horse will halt on both his fore-legs, and go stifly and creeping, as though he were half foundered.

As for the cure: take a couple of new-laid eggs, prick the horse's fore-feet well, and break the eggs raw into his soles, then stop them with ox or cow dung, and he will be well the next morning.

Or, melt sugar candy with a hot iron, between the shoe and the foot, and when it is hardened, take nettles and bay salt stamped and lay to his soles.

Or, you may first pare his feet to cool them, and stop them with bran and hog's grease boiled together, very hot, covering the coffin round with the same; or else stop them every night with cow-dung and vinegar, melted together.

Or, first pare the hoof, then open the heels wide, then take a good quantity of blood from the horse's toes, and having tacked on a shoe something hollow, then roll a little fine cotton-wool, or bombast, in frankincense, melt it into the foot, between the toe and the shoe, with a hot iron, till you have filled up the orifice, out of which the blood was taken, then melt half a pound of hog's-grease, and mix it with wheat bran, making it as thick as a poultice and stop up his foot with it, as hot as he can endure it, and then cover it with a piece of an old shoe, and splent it, causing the horse to stand still for three or four days, and if you see occasion, renew it till the cure is perfected.

SURFEIT IN A HORSE. A surfeit is nothing more than the effect of some new disease ill cured; and therefore what is called a surfeit in horses, is very different from the disease of the same nature in the human body; the latter being the beginning of a disease, and the former the relict or remains of it.

When a horse has a surfeit, his coat will stare, look of a rusty colour, and even dirty, though the greatest pains have been taken to keep him clean. His skin will be covered with scales and dander, appearing like meal among the hair: and when cleaned off will be followed by a continual succession of the same matter, occasioned from the common perspiration being obstructed. Some horses will be covered with a kind of dirty scab, others with a moist scab, attended with heat and inflammation, and the humour so very sharp, and causing so violent an itching, that the creature is incessantly rubbing himself, and by that means makes himself raw in several parts of his body. Some horses have neither scales, dander, or scabs; but look dull, sluggish, and lazy; some are hide bound; and others afflicted with flying pains, and a temporary lameness. In short, the symptoms are various, and almost as numerous as those of the scurvy itself.

As the symptoms are various, so are also the causes: some are surfeited by high feeding, and a want of proper exercise; by which a bad digestion is produced, and ill humours generated. Some are surfeited by unwholesome food; some by hard riding; some by drinking cold water when they are hot; and others by bad and improper physic.

The first operation in curing surfeits is bleeding, when three or four pints should be taken away; after which the following purge should be given:

Take of succotrine aloes, one ounce; of gum guaiacum in powder, half an ounce; of powder of myrrh, and diaphoretic antimony, of each two drachms: make the whole into a ball, with a sufficient quantity of syrup of buckthorn, and liquorice powder. Or,

Take aloes, six drachms; gum guaiacum, half an ounce; honey, or treacle, enough to make a ball.

One of these balls may be given once a week for some time; and in the intervals an ounce of the following powder in his morning and evening feeds:

Take of cinnabar of antimony in fine powder, half a pound; of crude antimony and gum guaiacum finely powdered, of each four ounces; mix the whole well together, and put an ounce of it into his feed as before directed.

If the horse be of small value, instead of the above powder, common antimony and sulphur may be given in his feeds, and will have a very good effect.

Sometimes common purges are sufficient to perform a cure, especially if the scabs are rubbed off with the following ointment:

Take of quicksilver, half an ounce; and rub it in a mortar, with half an ounce of turpentine, till the quicksilver

quickſilver entirely diſappears, adding by degrees one pound of hog's lard, and continuing the rubbing till the whole is incorporated.

But if the horſe be of value, I would adviſe the practitioner to purſue the firſt method; though it will be often neceſſary, even then, to have recourſe to the above ointment, which will cauſe the ſcabs to peel off, and cleanſe his ſkin. But care muſt be taken to keep the horſe dry when it is uſed; give him only warm water while the ointment is applied, which ſhould be once in three days; and when the horſe is entirely free from ſcabs, a doſe or two of phyſic ſhould be given him.

When the ſcabs are moiſt, and a ſharp humour flows from them, it is properly a running ſcurvy: and the diſeaſe muſt be cured like the former, by bleeding and purging, and then uſing external medicines of a repelling quality, particularly vitriolic and aluminous waters. But I would have every practitioner, into whoſe hands this uſeful work may fall, to be upon his guard againſt ſuch dangerous methods of practice; and after bleeding, as already directed, to give the following purge:

Take of lenitive electuary, and of Glauber's ſalts, of each four ounces; of freſh jalap in powder, one drachm: make the whole into a ball, with a ſufficient quantity of ſyrup of marſhmallows, liquorice powder, and forty drops of oil of amber, and give it the horſe in a morning faſting, after his body has been well opened with ſcalded bran.

When you have given the horſe three or four of the above balls, mix two ounces of liquorice powder, to make it into a ball; and nitre, with a ſufficient quantity of honey, and give him one every morning for a fortnight; which in all probability will entirely finiſh the cure: Or,

Take diapente made with the roots of ariſtolochia of both ſorts, fine myrrh, bay-berries, ſhavings of ivory or hart's-horn, and the roots of gentian, of each two ounces; dry them gently, powder them finely, and keep them in a glaſs bottle in a dry place.

Take of this three quarters of an ounce, and give it the horſe in a quart of ſtrong beer, and add to it half an ounce of *London* treacle, and four ounces of freſh butter; let it be milk-warm.

SWAIN-MOTE } a court that ſits about matters of
SWANI-MOTE } the foreſt, held thrice a year before the verderors as judges, and as requiſite in a foreſt as a court of pie-powder in a fair.

SWAN. A known royal fowl, concerning which there is a law, that whoever ſteals their eggs out of the neſt, ſhall ſuffer impriſonment for a year and a day, and be fined according to the king's pleaſure.

Where they build their neſts they muſt be left undiſturbed.

Theſe birds are very uſeful for keeping ponds and rivers clear of weeds, upon which and graſs they only feed, and not upon fiſh, as ſome imagine; and are neither chargeable nor troubleſome to keep, if they have but room enough.

They commonly lay ſeven or eight eggs, but ſeldom take pains to hatch them all, four or five being their uſual number.

The hen ſits brooding about ſix weeks, and if during that time oats be ſet once a day in a trough near her (in caſe ſhe has not plenty of weeds juſt at hand) it will prevent her leaving her eggs: as alſo if you ſet up ſome boughs, or other ſhelter, to ſcreen her from the heat of the ſun.

SWAYING OF THE BACK IN HORSES, an injury that may be received ſeveral ways:

1. By ſome great ſtrain, ſlip, or heavy burthen.
2. By turning him too haſtily round, *&c.*

The pain uſually lies in the lower part of the back, below his ſhort ribs, and directly between the fillets.

The malady may be perceived by the reeling and rolling of the horſe's hinder parts in his going, he being then ready to fall to the ground by his ſwaying backwards and ſidelong; and when he is down, he cannot riſe but with great difficulty.

The cure: Take two ounces of the fat of the fruit of the pine-tree: of *Olibanum* four; of roſin and pitch as many; one of bole ammoniac, and half an ounce of dragon's blood, which muſt all be well incorporated together, and laid plaiſter-wiſe all over the reins of his back, where you are to let it remain till it falls off.

Another good remedy for theſe infirmities, is to adminiſter ſome ſtrengthening things inwardly; as common turpentine made into balls, with the powder of bole-ammoniac, and that of the dried leaves of clary; and to apply outwardly, all over the reins of his back, a charge of *oxicroceum* and *Paracelſus* melted together, or colewort in ſallad oil made thick, a poultice with the powder of bole ammoniac and bean-flour:

Or, take two pounds of blood from the veins, then chafe his back with a warm hand, and apply two ſcarifying cupping-glaſſes, one on each ſide, where the pain ſeems chiefly to lie, or where the extravaſated blood is lodged.

Then put the horſe into a frame and hang him up, or by ſome other way incloſe him in grates, that he may not be able to move his body; and thus let him be kept for five or ſix weeks; then mix equal quantities of ſpirit of wine, and oil of turpentine together, by ſhaking it in a vial till it looks white like milk upon his back, rubbing it in. In the next place apply the red honey charge, adding to it half an ounce of galls at every application; applying a freſh charge every time, without taking away the former.

Or, inſtead of the honey charge, you may uſe the ointment of *Montpelier* for two or three days, and then proceed to fomentations; but if the horſe voids blood ſtill at the mouth and noſe, give him of ſal polycreſtum and juniper-berries, of each an ounce, pounded to powder, in a pint of red wine every day, for eight days ſucceſſively; and for the laſt four days give him an anodyne glyſter, after his fundament has been firſt raked:

Or, if none of the former methods ſucceed, make two or three inciſions with a large iron ſlice, and ſeparate the ſkin from the fleſh on the reins, about the breadth of half a foot on each ſide the back-bone, till you come to the hip-bone.

Stop the holes with ſlices of hog's-lard, about the thickneſs of half-a-crown, ſo as to hinder the ſkin from ſticking to the fleſh.

Then

Then rub the separated skin with an ointment made with equal parts of populeon, and ointment of marsh-mallows, and cover all the part with a lamb-skin, the woolly side inwards, laying a saddle-cloth over that.

Then hang the horse in such a posture that he cannot stir, and give him a clyster of sal polycrestum every night, and a pint of wine every day for eight days, and after forty-eight days you may uncover the sore, and if you find it to be much swelled, it is in a fine way towards a cure.

Then take out the lard, and press out the reddish matter, and put in a piece of fresh lard, chafing all the part with the ointment above-mentioned; then cover the sore as before, dressing it after the same manner for twelve days, once every forty-eight hours: and instead of the lard, dress it with the duke's ointment every day, till the sore is healed.

You may take away the lamb-skin twenty-two days after the beginning of the cure, and ten days after you may allow the horse to stir a little.

Instead of separating the skin, you may give him the fire (which is an easier remedy) piercing the skin with a red-hot iron, and making holes at the distance of an inch one from another, all over the same; then apply a good plaister, and two sheets of paper over it: hang the horse up for a month, and when the scales are fallen off, dress the sores with the duke's ointment, and proceed as before.

To SWEEP (in Falconry) is used of a hawk who wipes her beak after feeding, and therefore they say she sweeps.

SWELLED LEGS IN A HORSE, an infirmity he is sometimes subject to, by hard riding or much labour, when he is too fat, or carelessly put to grass, or set up in the stable too hot, whereby he takes cold, which causes the blood, grease, and humours, to fall down into his legs, and to make them swell.

Sometimes it comes by long standing in the stable, when the planks where his fore feet stand, are higher than where his hinder legs are; which uneasy posture makes the blood settle in the hinder legs, whereby they are unhappily brought to swell.

There are several prescriptions for the cure of this malady.

Some use nerve oil, black oil, soap, and boar's grease melted, and anoint the place therewith; or else bathe his legs with butter and beer, or with butter and vinegar melted together.

Some bathe them in water in which sage, mallows, and rose-cakes have been boiled, putting in butter and sallad oil; or boiling rosin, frankincense, and fresh grease, of each a like quantity, then strain it, and use it once a day, as there is occasion.

You may also wash the horse's legs in cold fountain water, or the horse may be left every day to stand up to the knees in running water, till the swelling is assuaged.

Others bathe the horse's legs with sheep's foot oil, train oil, or urine and salt petre mingled together, and wetting hay ropes in the same liquor, roll them from the pastern to the knee; but care must be taken not to bind them too hard.

Others boil primroses, violet-leaves, and strawberry-leaves, of each a handful, in new milk, adding nerve-oil, petroleum, and populeon, of each an ounce, and anoint the horse with this for four or five days successively.

Others boil pitch, virgin's-wax, rosin, galbanum, myrrh, zedoary, bdellium, *Arabian* storax, and the juice of hyssop, and when it is cold, they add bole ammoniac and costus finely powdered; these being well incorporated with the other ingredients, they boil them all over again, and when they use it, they spread it on a plaister and wrap it about the swelling, letting it remain there till it drops off of itself.

But when a horse's legs are much swelled, because of the scratches, boil a handful of bay-salt, a quarter of a pound of soap, with a good quantity of soot, and a good handful of misletoe chopped, in a quart of urine or more, and with this bathe his leg, very warm, twice or thrice a day, and wetting a cloth with it, wrap it close about his legs, and it will assuage the swelling. *See* REMOLADE.

SWELLED PIZZLE IN HORSES, is a kind of hardness which proceeds from the part being bruised by riding, and is cured in the following manner:

Take holly-hock, house-leek, and a little plantane, stamped together with fresh butter, and anoint his pizzle with it twice a day, and if the pizzle be sore, you must cast him, and wash his sheath and pizzle very well with white-wine vinegar; and if there be any cankers, or holes in the yard, then you must put some burnt alum to the vinegar, and wash it very well; and he will mend without fail in three times dressing.

SWELLED VEINS; that which the *French* call *varice*, is a crooked vein, swelling with corrupt blood in the temples, belly, or legs of a horse.

The cure: Open the skin of the horse, and burn it with a hot iron; then rub and chafe it well for ten days with milk and oil, and if the disease is not removed, let him blood, and this will effect the cure.

A Poultice to dissolve a Swelling in Horses.

Take garden orrice roots, and white lily-roots, of each an ounce; marsh-mallows, pellitory, penny-royal, origanum, calamint, and rue, of each a handful; chamomile, mellilot, and elder-flowers, of each half a handful; green anniseeds, common fennel, and cummin-seeds, of each half an ounce; boil all these together to a mash, in water and white wine vinegar; then pound them in a stone mortar to an even smooth mass, adding to them the meal of lupines, and beans, of each an ounce and a half, oil of chamomile an ounce and a half, oil of orrice the same quantity; mix them well in the mortar, and then heat them again, and apply this to the part affected, in greater or lesser quantity, according to the heat of the part.

This is a medicine extraordinary useful in all tumours,

mours, and is the more neceſſary, ſince tumours or ſwellings are ſo frequent in horſes, by reaſon of hurts and bruiſes they are ſo often liable to, which if not timely taken care of, and that judiciouſly, do degenerate into incurable fiſtulas, and cancerous ulcers; for it is allowed by all ſurgeons, that the ſafeſt way to cure all ſwellings (to which they give the name of tumours) except ſuch as are malignant, is by diſſolving them, if poſſible, which is the moſt ſucceſsful, and which ought to be uſed as ſoon, and as much as poſſible; but if that cannot be done, then you ought to endeavour to ripen them as ſoon as poſſibly can be.

Another for mollifying, ſoftening, ripening, and bringing to ſuppuration, a Swelling.

Take the roots of marſh-mallows, and thoſe of white lilies, of each a quarter of a pound; the leaves of groundſel, common mallows, brank-urſin, and violet plants, of each a handful; the flour of linſeed and fenugreek-ſeeds, oil of lilies, and gooſe fat, of each three ounces; waſh the roots and ſlice them, then boil them in water, and after ſome time put in the leaves, and boil all till the whole maſs becomes perfectly tender and ſoft: then ſtrain out the decoction, and pound the ſubſtance that remains in a ſtone mortar, with a wooden peſtle, till it comes to be a pulp; then put both the decoction and pulp into a ſkillet, mixing with them the flour or meal of ſenna-ſeed, and fenugreek ſeed, oil of lilies and gooſe fat; boil all together over a moderate fire, ſtirring the ingredients from time to time, till the maſs is become of a ſufficient conſiſtence.

This is a very uſeful medicine, becauſe dangerous conſequences do frequently happen to ſwellings, or tumours, in horſes, that will not be diſcuſſed, that is, not go away of themſelves, or that ſuch a poultice has been wanting to bring them to a ſpeedy ſuppuration.

For if a ſwelling or tumour that cannot be diſcuſſed, ſhould remain too long before it be brought to a ſuppuration or ripening, it generally putrefies and turns to a fiſtulous ulcer, which, very rarely, admits of a cure.

SWINE PIPE. A bird of the thruſh kind.

SWINE. *See* MANAGEMENT.

TAIL. The train of a beaſt, fowl, fiſh, &c.

TAIL OF A HORSE, ſhould be firm, the dock or ſtump of it ſhould be big, ſtiff, and placed pretty high; thoſe which have it ſet too low have ſeldom good reins; on the other hand, ſome of them have it ſet too high, which make their buttocks appear pointed and unſeemly.

A great many affirm, that the dock of a horſe's tail ſerves to point out his ſixth or ſeventh year, pleading that at the time the black ſpeck, or eye of a bean, begins to diſappear, and the cavity to be filled, the dock of the hair becomes longer, by reaſon that the vigour of the young years begins to abate, and nature has not ſtrength enough to nouriſh and keep up the joints or knots that form the dock, ſo that when the horſe is ſix years old, one of theſe joints ſlackens and begins to fall down, and a year after another deſcends in like manner.

But this relaxation or down falling, happens ſooner to ſome than others, according as they have been well or ill kept, with reference to feeding, houſing, and working. Accordingly we find the marks of a horſe's age, taken from the tail, are ſo erroneous, that we ſee a great many jockies maintain, that the firſt joint deſcends when he is nine, and the ſecond when he is ten years old.

TAPASSANT (Hunting term) uſed of a hare when ſhe is lurking or ſquatting.

To TAPPY (with Hunters) to lie hid as a deer may do.

TEAL. A delicate fowl for the table; but thoſe that buy them ought to be very careful in chuſing them; to know them, obſerve if the birds feel thick and hard upon the belly, if ſo they are fat; but if thin upon the belly, lean; if they are dry footed, they have been long killed; but if limber footed, new killed.

TEDDER, } a rope wherewith the leg of a horſe is
TETHER, } tied, that he may graze within a certain compaſs.

TEETH. Are little bones in a horſe's jaws, which ſerve not only to facilitate the nouriſhment, but likewiſe to diſtinguiſh the age of horſes.

A horſe has forty teeth, including the tuſhes, which are diſtinguiſhed as follows:

Twenty-four of them are called grinders, which are placed at the bottom of the mouth, beyond the bars, twelve on each ſide of the channel, *viz.* ſix above, and ſix on each ſide.

Theſe teeth continue, and do not fail to give place to new teeth in their room, ſo that they are of no uſe in diſtinguiſhing a horſe's age.

However, they are ſubject to wolves teeth.

With reference to the other ſixteen, twelve of them are called in their infancy, milk or foal teeth, and the remaining four go by the name of tuſhes.

The twelve foal teeth are ſhort, ſmall, and white teeth, ſeated on the fore part of the mouth, ſix above, and ſix below.

Theſe change and caſt, to give place to others; which, in proceſs of time, become long, large, and yellowiſh.

Theſe new teeth are diſtinguiſhed by the different names given them, according to their putting forth, and it is the manner of their coming forth, that gives us to know the firſt years of a horſe.

Now of theſe twelve, four are called nippers, four are called middling teeth, and four go by the name of corner teeth.

The four nippers are ſeated on the fore part of the mouth, two above, and two below.

When a horſe has put forth theſe, we conclude that he goes from two and a half to three years.

The middling teeth are placed near the nippers, or gatherers,

gatherers, one above, and one below, on each side of the jaws.

They come out and appear between three and a half and four years.

The corner teeth are placed yet more forward in the mouth, one above and one below, on each side of the jaws.

These begin to shoot between the fourth and the fifth year, and are got above the gum at five years.

When surmounted the gum at that age, they become hollow, and mark commonly till seven or eight years.

By marking we mean, that in the hollow or cavity of the corner teeth, a little black speck is formed; which, from its resemblance, we call the bud or eye of a bean.

But when the horse passes six, the cavity begins to fill, and the black mark disappears by degrees; yet this diminution of the cavity and the mark, continues from six till seven and a half.

At eight years the cavity is filled up, and the black mark gone, and in regard that the tooth is then full, even as if it had been shaved, we then say that the horse has razed; which happens a little before the eighth year, and after that the horse does not mark; so that the surest knowledge of his age is then took from his tushes.

The tushes are placed beyond the corner teeth upon the bars, two on each side of the jaws, *i. e.* one above, and one below, without being preceded by any foal teeth.

The two under tushes cut sometimes at three years, sometimes at three and a half, sometimes at four; but the two upper tushes appear sometimes at four, sometimes at four and a half; sometimes before, and sometimes after the corner teeth, without any certain rule; and till the age of six they are chamfered within.

About ten years of age the two upper tushes appear much worn, which serves for that age.

After that they grow out in length, and become bare of flesh, because the gum shrinks and retires; and at last, about the fifteenth or sixteenth year, the horse shells.

A horse is not capable of any great fatigue till his tushes have cut the skin.

Most of the *Dutch* horses are very sick when their tushes come forth; mares have them but seldom, and when they have them they are but very small. *See* SHELL-TOOTHED *and* COUNTER-MARKED.

TEGG (Hunting term) a doe in the second year of her age.

TEIGNES IN HORSES, a distemper in the foot, when the frush moulders away in pieces, and it goes the length of the quick, for then the itching pain is so great, that it will often make the horse halt.

TENCH; a delicious fresh water fish, that has but small scales, yet very large and smooth fins; he has a red circle about the eyes, and a little barb hanging at each corner of the mouth.

This fish delights more among weeds in ponds, than in clear rivers, and covets to feed in very foul water, yet his flesh is nourishing and pleasant.

His slime is said to be of very healing quality to wounded fish, and upon that account has obtained the title of the fishes physician; nay, the devouring pike is said to be so sensible of his virtue, that he will not hurt a tench, though he will seize upon any fish of his size that comes in his way: and when the pike is sick or hurt, he applies to the tench, and finds cure or relief, by rubbing himself against his body.

TENCH FISHING; the proper time of angling for the tench, is early and late, both morning and evening, in the months of *June*, *July*, and *August*, or all night in the still parts of rivers.

This fish is observed to be a great lover of large red worms, and will bite most eagerly at them, if you have first dipped them in tar: he also delights in all sorts of pastes, made up with strong scented oils, or with tar, or paste made with brown bread and honey; he will also bite at a cad worm, lob-worm, flag-worm, green-gentle, cad bait, marsh-worm, or soft boiled bread-grain.

To take Tench out of a muddy Pond.

You must provide yourself with a very good large casting net, well leaded, and let not the meshes, from the crown to a full yard and a half, be too small, for then, if the pond be any thing of a depth, the fish will strike away before the net comes to the ground.

The whole net ought to have a large mesh and deep tucked.

Make the place clean from stakes and bushes, and try the net before you go upon the sport; for if it happens to hang, all your pains would prove ineffectual: therefore you must be sure, before you cast in your net, to clear and cleanse the place twice or thrice with a rake.

Then take a quarter of a peck of wheat, baking it well in an oven, putting in near three quarts of water: when it is well baked, take five pints of blood and mix the wheat and blood well together, adding to it as much bran as is sufficient to make a paste of it, and that it may the better hold together, mix it up with some clay; knead it well together, with a quart of lob worms chopped in pieces, and wrought into a paste, as has been before directed: make it up into balls as big as a goose egg, and throw it into the pond, within the circumference of your casting net, and between-times throw in some grains; when you think the fish have found out the baiting place, come in the close of the evening (having baited very early in the morning) and cast your net over the baited place, taking a long pole, with a large fork made for that purpose, and stir all about the net, for the carp or tench are stuck up above their eyes in mud, and stand exactly upon their heads; but let the net lie for half an hour, still stirring with the pole, if the place be not too deep, and after having covered the fish, you may go into the pond and take them out with your hands; but if the water be deep when you find them begin to stir, lift the crown of the net bolt upright with

a long staff, that so the fish may play into the tuck of the net.

Observe, if you should draw up your net suddenly, after you have cast it in, it is a hundred to one odds whether you take one of them: but letting the net lie, the mud will choke them, if they remove not out of it.

Terms for the Lodging of Beasts of Chase, &c.

A badger *eartheth.*
A boar *coucheth.*
A buck *lodgeth.*
A coney *sitteth.*
A fox *kenneleth.*
A hare *seateth*, or *formeth.*
A hart *harboureth.*
A martern *treeth.*
An otter *watcheth.*
A roe *beddeth.*

For the Dislodging them.

A badger, *to dig.*
A boar, *to rear.*
A buck, *to rouze.*
A coney, *to bolt.*
A fox, *to unkennel.*
A hare, *to start.*
A hart, *to unharbour.*
A martern, *to untree.*
An otter, *to vent.*

For their Noise at Rutting Time.

A badger *shrieketh.*
A boar *breameth.*
A buck *groaneth*, or *troateth.*
A fox *barketh.*
A goat *rattleth.*
A hare *beateth*, or *tappeth.*
A hart *belleth.*
An otter *whineth.*
A roe *belloweth.*
A wolf *howleth.*

For their Copulation.

A boar *goeth to brim.*
A buck *goeth to rut.*
A coney *goeth to buck.*
A fox *goeth a clicketting.*
A hare *goeth to buck.*
A hart *goeth to rut.*
An otter *hunteth for his kind.*
A roe *goeth to tourn.*
A wolf *goes to match or make.*

Terms when they are in Company one with another.

A *herd* of harts, and all manner of deer.
A *bevy* of roes.
A *founder* of swine.
A *rout* of wolves.
A *brace* or *leash* of bucks, foxes, or hares.
A *couple* of rabbits.
A *couple* of coneys.
A *richness* of marterns.

For their Foot and Treading.

A boar, the *track.*
A buck, and all fallow deer, *the view.*
Of all deer, if on the grass, and scarce visible, then it is called *foiling.*
Of a fox, the *print*, and of other such vermin the *footing.*
Of a hare diversly; for when she is in open field, she is said to *sore*, when she winds about to deceive the hounds, she *doubles:* when she beats on the hard highway, and her footing can be perceived, she *pricketh*, and in the snow her footing is called the *trace.*
Of the hart the *slot.*
Of an otter, the *marks.*

Terms of a Tail.

A boar, the *wreath.*
A buck, the *single.*
A coney, the *scut.*
A fox, the *brush* or *drag*, and the tip at the end is called the *chape.*
A hare, the *scut.*
A hart, the *single.*
A wolf, the *stern.*

For their Ordure.

Of a boar, the *lesses.*
Of a deer, *fewmets*, or *fewmishing*,
Of a fox, *blittering*, and all other such the *fuants.*
Of a hare, *crotiles*, or *crotising.*
Of a hart, the *fewmets*, or *fumishing.*
Of an otter the *spraints.*

Terms in Hunting, &c.

When a hart breaks herd, and draws to the thicket, or coverts, they usually say he *takes his hold*, or *goes to harbour.*

All kind of deers fat is called *suet*, and yet you may say this deer was a high *deer of grease.*

The fat of a boar is called *grease.* The fat of a roe only, is called *heavy grease.*

Of a deer they say, *she is broken up*, of a fox and hare *she is cased.*

Of fox cubs, they say *a litter;* of rabbits, *a nest;* of squirrels, *a dray.*

Terms for the Attire of Deer.

Of a stag, if perfect, *the bur*, the *pearls* (the little knobs on it) the *beam*, the *gutteres*, the *antler*, the *sur-antler*, *royal*, *sur-royal*, and all at the top the *croches.*

Of a buck, the *bur*, the *beam*, the *brow-antler*, the *back-antler*, the *advancer*, *palm*, and *spellers.*

If the croches grow in form of a man's hand, it is then called a *palmed-head*; heads bearing not above three or four, three croches being placed aloft of one height, are called *crowned-heads.* Heads having doubling croches, are called *forked-heads*, because the croches are planted on the top of the beam like forks.

If you are asked what a stag bears, you are only to reckon the croches he bears, and never to express an odd number: for if he has four croches on his near horn, and five on his far, you must say *he bears ten*, a false right on his near horn (for all that a beam bears are called *rights*). If but four on the near horn and six on the far horn, you must say *he bears twelve*, a double false right on the near horn; for you must not only make

make the number even; but alſo the horns even with that diſtinction.

Terms for flaying, ſtripping, and caſing all manner of Chaſes.

Of a hart and all manner of deer, they ſay *they are ſlain*. Huntſmen uſually ſay *take off that deer's ſkin*.

Of a hare, they ſay ſhe is *ſtripped*, or *caſed*; the ſame term is alſo uſed of a boar.

A fox, badger, and all manner of vermin, are ſaid to be *caſed*, beginning at the ſnout, or noſe of the beaſt, his ſkin being turned over his ears down to the body, till you come to the tail.

Proper Terms for the Noiſes of Hounds.

When hounds are firſt caſt off, and find ſome game, or chaſe, we ſay they *challenge*.

If they are too buſy before they find the ſcent good, it is ſaid they *babble*.

If they run it end ways before they make it good, and then hold it together merrily, they are ſaid to be *in full cry*.

When ſpaniels open in the ſtring (or a greyhound in his courſe) they ſay, they *lapſe*.

When hounds hang behind, and beat too much upon the ſcent, or place, they ſay, *they plod*.

When they have either earthed a vermin, or brought a deer, boar, or the like, to turn head againſt them, they are ſaid *to bay*.

Different Terms for Hounds and Greyhounds.

Of greyhounds two make a *brace*; of hounds a *couple*; and of greyhounds three make a *leaſh*; and of hounds *a couple and a half*; they ſay *let ſlip a greyhound*, and *caſt off a hound*:

They call the ſtring, wherein a greyhound is led, a *leaſe*: and that of a hound, a *leam*, *liam*, or *lyome*.

The greyhound hath his *collar*, and the hound his *couples*.

Of hounds they ſay a *kennel*, of beagles a *pack*.

Thoſe places are called *entries* where they find a deer has lately paſſed into thickets, by which they gueſs at their largeneſs, and then put the hounds or beagles thereto for their view.

A *layer* is a place where any deer has repoſed or harboured.

When the hounds or beagles hit the ſcent of their chaſe contrary, as to hit him up the wind, when they ſhould hit it down, they ſay *they draw a miſt*.

When hounds or beagles take freſh ſcent, hunting another chaſe, until they ſlick and hit it again, they ſay *they hunt change*.

When the hounds or beagles hunt it by the heel, they ſay *they hunt counter*.

When the chaſe goes off, and comes on again, traverſing the ſame ground to deceive the hounds or beagles, they ſay *they hunt the foil*.

When they ſet hounds in readineſs, where they expect the deer will come by, and then caſt them off, when the other hounds are paſt by, they call that *a relay*.

When hounds or beagles have finiſhed their chaſe, by the death of what they purſued, and then in requital, are fed by the hands of the huntſman, or others, it is called *a reward*.

When huntſmen go drawing in their ſprings at hart-hunting; and uſually make dew-rounds, they are called *ring-walks*.

When deer caſt their horns, they are ſaid *to mew*.

When a deer has been hard hunted, and then betakes himſelf to ſwimming in any river, &c. they ſay *he takes ſoil*.

The firſt head of a fallow deer is called *the prick*.

When huntſmen endeavour to find a hart by the *ſlot*, and then mind his ſtep, to know whether he is great and long, they then ſay they know him by his *gait*.

When deer, after having been hard ran, turn head againſt the hounds, they are ſaid *to bay*.

When hounds or beagles run along, without making any cry, they are ſaid *to run mute*.

When hounds or beagles at firſt finding the ſcent of their game, preſently open and cry, they are then ſaid *to challenge*.

When hounds run at a whole herd of deer, they are ſaid to *run riot*.

When the hounds touch the ſcent, and draw on till they rouze or put up the chaſe, they ſay *they draw on the ſlot*.

When a roe croſſes and doubles, it is called *trajeiting*.

When a hare, as ſometimes, (though ſeldom) takes the ground like a coney, they then ſay, *ſhe goes to the vault*.

When they beat the buſhes after a fox, they call it *drawing*.

When a hare runs on rotten ground, or in a foreſt ſometimes, and then it ſticks to her feet, they ſay *ſhe carries*.

When a fox has young ones in her, they ſay *ſhe is with cub*.

When beagles bark and cry at their prey, they ſay, *they yearn*.

A red male hart of a year old, is called a *ſpitter*.

A rein deer is a beaſt like a hart, but hath his head fuller of antlers. Thoſe engines that deer are taken with, are called *wiles*.

When hounds or beagles are ſet in readineſs, expecting the chaſe to come by, and then caſt off before the reſt come in, it is called *a vauntlay*.

When they ſtart a hare, they cry *that that*, or *there there*.

When hounds or beagles find where the chaſe hath been, and make a proffer to enter, but return, they call it *a blemiſh*.

To a deer they ſay *how*.

A leſſon blown on the horn to comfort the hounds, is termed *a call*.

A *recheat* is a leſſon blown on the horn.

The *mort* or *death*, is blown at the death of any deer.

A hind in the firſt year is called a *calf*, in the ſecond

year a *hearse*; and sometimes we say a *brocket's sister*, &c. and the third year a *hind*.

A hare is the first year called a *leveret*, the second year a *hare*, the third year a *great hare*.

The fox is the first year called a *cub*, the second a *fox*, the third year an *old fox*.

A coney is called the first year a *rabbet*, and afterwards an *old coney*.

When you see about twenty deer, of what sort soever, together, it is a *small herd*; about forty is a *middle herd*; sixty or eighty is a *great herd*, whether they be male or female.

Upon view of a hart, if he be a goodly deer, do not call him *fair*, but *great*; and so a *great hind* and a *great buck*; but a *fair* and *comely doe*.

When a deer eateth in a corn or grass field, he is said to *feed*, otherwise to *browze*; and if he stayeth to look on any thing, he is said to *stand at gaze*; when he forceth by upon force, he *trippeth*; and when he runs a pace he *straineth*.

When he is hunted and leaves the herd, then he *singleth*; and when he foams at the mouth, he is *embossed*; when he swelleth or venteth any thing, they say he hath this or that in the *wind*; when he holds out his neck at the full length inclining, they say *he is spent*; and being dead, say *he is done*.

When a huntsman beats a wood to find a chase, it is called *drawing of the covert*; and when he sees where any deer hath been, they say *here he breaketh*.

When some few hounds are set in readiness, by any place where it is supposed the chase will pass, it is termed a *vauntlay*; and when they tarry until the rest of the hounds come in, it is called *an allay*; but if they hold till the kennel be past, it is called *a relay*.

When a hart entereth a river or pool, which is termed the *soil*, say *she descendeth*; when you see him ready to enter water, say *he proffereth*; and if he doth it the second time, then say *he re-proffereth*; and after he hath once descended, and you see where he hath trod, the water filling his footsteps, then say *here the hart defouleth*; and the slot or view that is found of such a deer on the other side of the water, is to be termed *as a deer defoulunt the soil*.

The hart, buck, and boar, oftentimes take soil without being forced, and all other beasts are only said to take water, except the otter, and he is said to *beat the stream*.

When they cast about a grove or wood with the blood-hound, they *make a ring*: when they find where the deer hath passed, and plash any bough downwards for a mark, then they say *they blemish*, or *make blemishes*.

When they hang up any paper, clout, or mark, it is called *sewelling*, or *setting of sewels*.

When a hound meets a chase and goes away with it far before the rest, they say *she foreloyneth*.

When a hound hunts backwards the same way the chase is come, then they say *he hunts counter*; and if he hunts any other chase but what he first undertook, then he is said to *hunt change*.

When any deer, or other chase, useth subtilties to deceive the hounds, then he is said to *cross* or *double*.

When a hart or stag breaks herd, and draws to the covert, they say *he goes to harbour*, or *taketh his hold*, or *he covereth*; and when he cometh out again, then *he discovereth himself*.

There is a great difference between the *frith* and the *fell*; the *fells* being taken for the *vallies*, green *compastures*, and *mountains*; and the *friths* for *springs* and *coppices*.

There is also a difference between the word *ways* and *trenches*: for by the first is meant the high and beaten ways on the outside of a forest or wood: and by the word *trench*, a very small way, not so commonly used.

There is likewise a difference between a *trench* and a *path*, which is a place where a deer has only left *slot* or *view*.

Blemishes, are the marks to know where a deer hath gone in or out, and they are little boughs plashed or broken to hang downwards; for any thing that is hung up, is called a *sewel*.

Terms in HAWKING, *&c.*

Arms, the legs from the feet to the thigh.

Bate, } is a term used of a hawk, when she flutters
Buteth, } with her wings from the perch to the fist, endeavouring to fly away.

Bathing, is washing herself.

Beak, the upper crooked part of her bill.

Beam Feathers, the long feathers in the wings.

Beavy of Quails, a brood of young ones.

Bewits, the leathers, with bells, which are buttoned about the hawk's legs.

Bowet, } a young hawk that draws any thing out of
Bowess, } her nest, and endeavours to get on the boughs.

Bowsing, is a hawk's drinking often, and yet desires more.

Brayle, a piece of leather slit to put upon her wing to tie it up.

Brancher, a young hawk, new taken out of the nest, which can hop from bough to bough.

Cage, that on which hawks are carried, when designed for sale.

Cancellering, or *cancellaring*, signifies stooping.

Currying, a hawk is said so to do, when she flies away with her quarry.

A Cast of Hawks, are two.

Casting, is what is given her to purge or cleanse her gorge.

Cataract, a disease in a hawk's eye.

Cauterizing irons, are used in searing.

Cawking-time, treading or coupling time.

Check, is when she forsakes her proper game, and flies at crows, pyes, or the like, that cross her in her flight.

Clap, the nether part of the beak.

Coping, is paring.

Coping-irons, are those used for coping or paring her pounces or talons, when they are over-grown.

Cowring, is quivering or shaking, in testimony of obedience towards the old ones.

Covey

Covey of Partridges, a brood that always accompany together with the old ones till pairing time.

Crabbing, is when hawks that ſtand near one another, fight.

Cray, a diſeaſe in a hawk.

Creance, a ſmall long line of fine, even packthread, that is faſtened to the leaſe of a hawk, when ſhe is firſt lured.

Crivets, } the ſmall black hairs about the lears or eye-
Crinets, } lids.

Crock, a diſeaſe in a hawk.

Diſcloſed, is when the young ones juſt peep through the ſhells.

Dropping, is when ſhe muteth downwards in ſeveral drops, and not yerking it ſtraight forward.

To Endew, } is when ſhe digeſteth her meat, not
To Endue, } only diſcharging her gorge of it, but alſo cleanſing her pannel.

Engouth, when the feathers have black ſpots.

To Enſeam, is to purge her of her glut and gleam.

To Enter, a term uſed of a hawk, when ſhe begins firſt to kill.

Eyes, a young hawk juſt taken out of the neſt.

Eyrie, the place where they build and hatch their young.

Feuking, is wiping her beak after feeding.

Filander, a diſeaſe in a hawk.

Flags, the feathers next the principal feathers in her wings.

Flying on head, is when ſhe miſſes her quarry, and betakes herſelf to the next check, as crows, pyes, *&c.*

Formale, the female hawk.

Formica, a diſeaſe in hawks.

Frounce, a diſeaſe in hawks.

Gleam, a term uſed after a hawk hath caſt and gleameth, or throweth up filth from her gorge.

Glut, the ſlimy ſubſtance that lies in the pannel.

Gorge, the crop or craw of a hawk, or other fowl.

Gurgipting, is ſaid of a hawk when ſhe is ſtuffed up.

Hack, a place where a hawk's meat is put.

Hac Hawk, that is a tackler.

Haggard-Hawk, one that has preyed for herſelf, and is taken after *Lent*.

Jack, a male hawk.

Jeſſes, the ſmall ſtraps of leather that are faſtened to her legs, and ſo to the leaſh, by the varvels.

To Imp, is to put a feather into a hawk's wing, in the place of one that is broken.

Juke, the neck from the head to the body, of any bird a hawk preys upon.

Intermewing, is from the firſt exchange of her coat, till ſhe turns white.

To Jonk, is to ſleep.

To Lean, is to hold to you.

Leaſe, } the ſmall long leather thong faſtened to the
Leaſh, } jeſſes, by which ſhe is held faſt on the fiſt, it being wrapt about the fingers.

Lure, that which is caſt up by Falconers to bring a hawk down.

A Make-Hawk, } an old ſtaunch hawk made uſe of
A Quarry-Hawk, } to enter young.

Mails, the breaſt feathers of a hawk.

Manning a hawk, is making her endure company.

To Mantle, is to ſtretch one wing after one leg, and the other after the other.

Mew, the place where a hawk is ſet down, the time ſhe raiſeth her feathers.

Mewting, the dung of long-winged hawks.

Nares, the little holes in a hawk's beak.

Pannel, the pipe next her fundament, where ſhe digeſteth her meat from her body.

Perch, a place on which a hawk is ſet to reſt.

Pelt, the dead body of any fowl ſhe has killed.

Pendant feathers, thoſe behind the thighs.

Petty ſingles, a hawk's toe.

Pill, } that which a hawk leaves of her prey after
Peſf, } ſhe is relieved.

The Pin, a diſeaſe in hawks.

Plume, the general mixture of colours and feathers, by which the conſtitution of a hawk is known.

Plumage, the ſmall feathers given a hawk to make her caſt.

Pluming, is after a hawk has ſeized her prey, and diſmantles it of it's feathers.

Pounces of a hawk, her claws.

Poult, that is, killing poultry.

In Pride, is to be in good fleſh and heart.

To Prune, is to pick herſelf.

Put over, a term uſed when ſhe removes her meat from her gorge into her bowels, by traverſing with her body; but chiefly, with her neck.

Quarry, the fowl a hawk flies at, either dead or alive.

Quarry-Hawk, an old, entered, and reclaimed hawk.

To Rake, a term uſed when ſhe flies out too far from the game.

Ramage, or *ſoar-hawk*, is one that can fly, having preyed for herſelf.

Rangle, is when ſhe has gravel given to her to bring her to a ſtomach.

To Reclaim a Hawk, is to make her gentle and familiar.

Retrieve, is when partridges having been ſprung, are to be found again.

To Rouze, is to lift up, and ſhake herſelf.

To Ruff, is to hit the prey, and not to truſs it.

Rufter-hood, a large, wide, and eaſy hood, open behind, being the firſt that is made uſe of.

Rye, a diſeaſe in hawks.

Sails, the wings of an hawk.

Sear, the yellow betwixt her beak and eyes.

Seeling, is when being firſt taken ſhe is blinded, with a thread run through her eye-lids, ſo that ſhe ſees but little, or not at all, that ſhe may the better endure the hood.

Seizing, is when ſhe gripes the prey with her talons.

Setting down, is when ſhe is put into the mew.

Slice, is the dung of a ſhort-winged hawk.

Sliceth, ſignifies ſhe mewteth a good diſtance from her.

Slimeth, that is, ſhe mewteth without dropping.

Staunch Hawk, one well entered for the game.

Stooping, is when ſhe is aloft upon the wing, and deſcends to ſtrike th game.

Summed, is when ſhe is in all her plumes.

Swival,

Swival, that which keeps a hawk from twisting.

Tassel, a male hawk.

Tiring, is when you give her the leg or pinion of a pigeon, or the like, to pluck at.

Towereth, is when she lifts up her wings.

Train, the tail of a hawk.

Train, something alive or dead, tied to the lure to entice her with it.

Trussing, is when she raises a fowl aloft, and soaring with it, at length descends with it to the ground.

Varvels, little silver rings at the end of *jesses*, on which the owner's name is engraven.

Unreclaimed, is said of a hawk while she is wild.

To Unstrike the Hood, is to draw the strings that it may be in readiness to be pulled off.

Unsummed, is when her feathers are not fully grown.

Urives, nets to catch hawks with.

To Weather a Hawk, is to air her.

TERRA-A-TERRA, is a series of low leaps, which a horse makes forwards, bearing side-ways, and working upon two treads.

In this motion, a horse lifts both his fore-legs at once; and when these are upon the point of descending to the ground, the hinder legs accompany them with a short and quick cadence, always bearing and staying upon the haunches; so that the motions of the hinder-quarters are short and quick; and the horse being always well pressed and coupled, he lifts his fore-legs pretty high, and his hinder-legs keep always low, and near the ground.

This manage is called *terra-a-terra*, because in this motion the horse does not lift his legs so high as in corvets.

TERRAIGNOL. A horse so called, is one that cleaves to the ground, that cannot be made light upon the hand, or put upon his haunches, that raises his fore-quarters with difficulty, that is charged with shoulders, and, in general, one whose motions are all short, and too near the ground.

TERRAIN, is the managed ground upon which the horse marks his piste or tread; this horse observes his ground well; he keeps his ground well; he embraces his ground well; without enlarging or narrowing more to one hand than to another.

TERRIER. A kind of mongrel greyhound, used chiefly for hunting the fox or badger; so called, because he creeps into the ground, as the ferrets do into the coney-burrows, and there nips and bites the fox and badger, either tearing them in pieces with his teeth, or else hauling and pulling them by force out of their lurking holes; or at least driving them out of their hollow harbours, to be taken by a net, or otherwise.

The huntsmen have commonly a couple of terriers, to the end they may put in a fresh one, as occasion serves, to relieve the other.

The time proper for entering these terriers is, when they are near a year old; for if it be not done within that time, they will hardly after be brought to take the earth, and this entering and fleshing of them may be performed several ways.

1. When foxes and badgers have young cubs, take your old terriers, and enter them in the ground; and when they begin to bay, hold every one of your young terriers at a particular hole or mouth of the earth, that they may listen, and hear the old ones bay.

After you have taken the old fox or badger, so that nothing remains within but the young cubs, couple all your old terriers, and put the young ones in their stead; encourage them by crying, *to him, to him*.

And if they take any young cub within the ground, let them alone to do what they will with him; and do not forget to give the old terriers their reward, which is blood and livers fried with cheese, and some of their grease, shewing the heads and skins to encourage them.

Another way is, to take an old fox or badger, and to cut his nether jaw away, leaving the upper to shew the fury of the beast, though he can do no harm with it, or else break out all his teeth; then dig an earth in some convenient place in the ground, making it wide enough, that the terriers may the better turn therein, and have room enough for two to enter.

Cover the whole with boards and turf, first putting the fox or badger in, and then your terriers, both old and young; which when they have bayed sufficiently, begin to dig with spades and mattocks, to encourage them, against such time as you are to dig over them: afterwards, take out the fox and badger, with the chumps or pincers, killing it before them; or let a greyhound kill it in their sight. *See* HARRIER.

TETTER, otherwise called flying-worm or ring-worm, a very bad sorrance, which runs up and down a horse's body; from whence it receives its name; sometimes proceeding from the heat of the blood, and engenders a hot and sharp humour, and sometimes from bad and foul feeding, and is most commonly found in his rump, which runs down the joint till it runs into the tail; and if it continues there long, will turn into a canker; but yet it will now and then settle upon some fleshy part of the body, which will so trouble him with itching, and rubbing against walls and posts, that it will bring away the hair, skin and flesh; he will tear with his teeth, if he can come at it, the itching is so violent.

This distemper may be known by the falling away of the hair, and by his continual rubbing; but if it gets into the joint, between the top of his rump and the tail, then it is known by a scab, which you may feel with your finger; and if it be scraped or picked away, a thin water will come out of it by degrees, which being left long to run, will, in time, get into his tail, and become a canker, as aforesaid.

Things generally used in the cure of this disorder, are, water found in the decayed hollow of a beech-tree, wherewith it is rubbed: the juice of the leaves and roots of stinking gladwin, one pint of plantain-water, two of beef-brine, boiled together, and clarified, is good to kill them: so are many more things; but particularly, take two drachms of precipitate, put into a small glass-vial, with fair water, much more than will cover the powder, and kept close stopped; with which wash it thrice a day, and after you have dressed

dressed the sorrance, shake the glass, and let it stand till next dressing: but if it be in any fleshy part, you may kill it by bathing the place with the juice of southern wood, maudling, and rue, of each a like quantity, and put them into three quarts of urine, with two handfuls of bay-salt: let it boil till one quart be consumed: then take it off, and with a clout fastened to a stick, wash the sorrance very hot, four or five mornings together. Or,

Melt arsenic in a fire-pan over the fire; and when cold, reduce it to a powder; taking care to avoid its fumes while melting, and the powder when pounding; scratch the wart or tetter till it bleeds, and apply a small quantity of powder, which without repeating the application, will generally remove the blemish.

THIGHS OF A HORSEMAN, the effect of the rider's thigh is one of the aids that serves to make a horse work vigorously in the manage.

As soon as the horseman closes with his thighs, you see the horse is enlivened and alarmed, as preparing himself for doing what is demanded of him, and disposing himself for the manage.

THROSTLE, OR THRUSH: of this bird there are five sorts; 1. The mistle-throstle, which is much bigger and larger than any of the others; her food far different, and very few of them to be seen; and though she is exceeding beautiful, yet she sings but little, except she breeds near a place where is a quantity of misletoe, and if it be possible in a thicket, or in some pit; for she is a very melancholy sort of bird: she makes as large a nest as the jay, and lays as big an egg, building the outside commonly with rotten heaps, and the inside with dead grass, hay, or moss, that she peels from trees: she seldom lays above five eggs, but most commonly four; breeds but twice a year; has three young ones, never more than four; feeds all her young ones with the berries of misletoe, and nothing else, as can be perceived; for which reason, some esteem the flesh of the throstle as an excellent remedy against convulsions and the falling sickness. The young birds of this kind, taken about fourteen days old, are easy to be brought up, being very hardy; they are fed with bread, hemp seed, and a little sheep's-heart between whiles. But their song is confused and rambling, not lavish, and therefore they are not worth rearing, yet they will breed like pigeons, if rightly managed.

2. The northern throstle or field-fare; which comes to us after *Michaelmas*, continues all winter, and departs the first of *March*; his food is hips and haws in hard weather: and in open weather, worms and young grass, lying altogether upon meadow and pasture-grounds: they come in very great numbers, and also go away in flocks: their breeding-place is assigned to be near the sea-side in *Scotland*, where they are in abundance, and have young three or four times every year: they may be taken by bird-lime; and are better for the spit than the cage, being excellent meat when very fat, which is in hard weather; but in open weather their flesh is bitter, and not worth eating.

3. The wind throstle, which comes along with the last mentioned bird, but she is much smaller, with a dark red under wing; she breeds in woods and shaws, as the song-throstle in *Scotland* does, and has an indifferent song, far exceeding the two former: in *January*, in fine weather, the sun-shining, they will get a great many together upon a tree, and sing two or three hours, yet they are not melodious, and so not worth the pains of keeping, especially since they will not sing above three months.

4. The wood-song throstle, which is a very choice song-bird, for the great variety of his notes, for lavishness in his song, and for his continuing longer than any bird in song, it being at least nine months in the year. The hen builds her nest the beginning of *March*, upon the stump of an old tree or side of the coppice by a ditch, according as she finds food, and stuff most convenient for her building, as also meat for her young. She fashions her nest round and deep, with moss, or dry grass; and when she has completed the first part, she wonderfully and after a most exquisite manner, daubs the inside with a sort of earth called loam; doing it so smooth and even, and all with her bill, that it is beyond the art of man to perform the like with any tools: whereas this bird commonly leaves a hole at the bottom of her nest in the middle, it is supposed to be to this end, that it may not be drowned upon any sudden violent showers, or long continuance of rain: they generally breed three times a year, if they meet with no disturbance or casualties by the way; and if the weather be fine and warm, they go very soon to nest. The first commonly is hatched in *April*, and sometimes the latter end of *March*, the second in *May*, and the third in *June*; but the first birds generally prove the stoutest and best: they may be taken from the nest at fourteen days old, but must be kept warm and neat, not letting them sit upon their dung, if it fall into their nest, but to order it so, they may dung over their nest, while they are young and small. They should be fed with raw meat, and some bread chopped and mixed together with hempseed bruised; which bread is to be wet and mingled with the meat. When they begin to be well feathered, put them into a large cage, with some dry moss in the bottom, and let them have two or three perches, that they may sit and lie at pleasure; for if not kept clean, they are subject to the cramp, and will never sing, nor delight in themselves: you may, by degrees, leave off giving the sheep's heart, for bread and hempseed will do; but be sure to let them have fresh water twice a week, that they may bathe and prune themselves.

5. The heath-throstle, the smallest of the three sorts we have in *England*, and is known by his dark breast: in some countries they are called Mavises; for they differ in their colour, song, and way of breeding: the cock-heath throstle hath much sweeter notes than the wood-song throstle, is neater in his plume, and so to be preferred before him. The hen builds by the heath-side, either in a furze-bush, or by a ditch side, in the stump of an old hawthorn, and seldom haunts the woods and shaws, as the other does; her nest is very difficult to be found, which she builds with long green ground moss, making it much deeper, and less than

than the former; ſhe begins not to hatch till the middle of *April;* breeds twice a year, and is a fine, tame, neat bird, if well fed, and kept clean from dung and vermin. Her young are to be brought up in every reſpect after the ſame manner as is here ordered for the other ſort.

There are ſeveral methods laid down to diſtinguiſh the cock from the hen: but to avoid needleſs particulars, firſt view his gullet, whether it be white, with black ſtreaks on each ſide; then if he hath large and black ſpots upon his breaſt, and the colour of his head of a light ſhining brown, with black ſtreaks under the eye, and upon the pinion of the wing; if you find theſe marks, you are right in your choice: but if you would not fail, bring up the whole brood, and as you will find in a ſhort time after they feed themſelves, that they all record to themſelves; yet take notice, that the hen does it with ſhort catches and jerks, and continues it not long; whereas the cock is full, and you perceive his gullet to extend much more than the oth rs, and to ſing much oftener than the hen. Having made this obſervation two or three times, take him out of the cage, mark him, and then put him in again.

TICK, an infirmity in a horſe, when he preſſes the edge of the manger with his upper teeth, and gives a kind of belch through the throat, by which means he loſes part of his oats.

TICKLISH IN THE MANAGE. A horſe is ſaid to be ticklish, that is, too tender upon the ſpur, and too ſenſible, that does not freely fly the ſpurs, but in ſome meaſure reſiſts them, throwing himſelf up, when they come near and prick his ſkin.

TIRING. If this befal a horſe in travelling, or a hunting-match, or the like, the beſt helps you can give him, is warm wine to drink, and bleed him in the mouth, and to let him lick up and ſwallow the ſame; and if there are nettles to be had where you are, rub his mouth, and ſheath him well with them, and afterwards ride him gently to his reſting place, and ſet him up warm, and before you go to bed give him half a dozen ſpoonfuls of aqua vitæ, with as much provender as he will eat: the next morning rub his legs with ſheep's foot oil, and it will cauſe a freſh agility in his limbs.

Some bleed the horſe in the neck vein, and the next day give him a clyſter, with an ounce and a half of ſal polycreſtum, and afterwards cauſe him to drink a pound and a half of olive-oil, and keep him bridled for two hours after.

TIT. A little horſe, and ſome call a horſe of a middle ſize a double tit.

TIT-LARK. This bird is ſhort in his ſong, and no variety in it, yet ſome fancy him for his whiſking, turning and chewing, ſinging moſt like the canary bird of any bird whatſoever. He commonly appears the beginning of *April*, and leaves us at the beginning of *September*.

When they are taken, they are fed as the nightingale is; they muſt be crammed at firſt, for they will not feed themſelves, by reaſon they always feed on live meat in the field; for which cauſe he is unacquainted with the meat we offer him: when he comes to feed of himſelf, he will eat what the wood-lark eats, or almoſt any other.

There is no taking the old ones but with a net, ſuch as all other birds are catched with.

This bird breeds about the latter end of *April*, or beginning of *May*, and builds her neſt on the ground by ſome pond ſide, or ditch-ſide, or in a garden in high graſs, and makes her neſt of dead graſs and a few ſmall roots; commonly lays ſix eggs, or five at leaſt, and has her young by the middle of *May*, which ſhe feeds with caterpillars and flies.

Theſe birds are very eaſily brought up, being hardy, and not ſubject to colds and cramps as other birds are, but live long if preſerved with care.

TOE BEFORE, AND QUARTER BEHIND (with Farriers) a rule which they obſerve in ſhoeing horſes, or, as it is commonly expreſſed, *before behind*, and *behind before*.

By toe before is meant, that you may give the nails a good hold upon the toe of the fore feet; becauſe there the horn is very thick, which it is not in the quarters of the fore-feet, for there the horn is thin, and you would hazard the pricking the horſe. *See* QUARTER BEHIND AND OPENING A HORSE'S HEELS.

TONGUE OF A HORSE, ſhould be ſmall, or elſe it will be difficult to keep the bit from preſſing it; which cauſing the tongue to extend over his bars and to cover them, will render his feeling of the preſſure of the bit dull, by hindering its operation and effect upon the bars.

TONGUE-HURT, is what befals a horſe by accident, or by a bit, halter or the like.

For the cure; ſome boil water in leaves of wood-bine, primroſe, blackberry and knot graſs, with ſome honey, adding a little alum; with this they waſh the horſe's ſore of his tongue two or three times a day with a clout tied to a piece of ſtick, the liquor being lukewarm.

Or anoint with mel roſatum; but whenever you dreſs either tongue or mouth, do not fail to tie the horſe up to the rack for an hour after it.

Some take red honey, the marrow of pork powdered, quick lime and pepper, made into fine powder, of each a like quantity, and boil them together till they come to an ointment, and rub the part with it twice a-day.

TOP-ANGLING, with a worm, requires a line without float or lead. The bait muſt be drawn up and down the ſtream on the top of the water. This method ſhould only be uſed when the weather is fine, and the water clear; it is ſometimes ſucceſsful in fiſhing for a trout and ſalmon-ſmelts.

TORCHENISS, is a long ſtick with a hole at the end of it, through which we run a ſtrap of leather; the two ends of which being tied together, ſerve to ſtraighten cloſely and tie up a horſe's noſe, as long as the ſtick is ſtayed upon the halter or ſnaffle.

This is done to keep the horſe from being unruly when they go to dreſs him, or upon any other occaſion.

TOWRUS (with Hunters) a roebuck, eager for copulation, is ſaid to go to his towrus.

TRACE OF A HARE, is her footing in the ſnow, diſtinct from her other treadings, called doubling, ſoring and pricking.

TRACES, are alſo the treads of ravenous beaſts, or wolves, wild bears, &c.

TRACK [with Huntſmen] the footing of a wild boar.

TRAILING. For trailing no rules can be laid down with certainty, it depends on the judgment of the huntſman, and his juſt knowledge of the ſeveral good and bad properties of his dogs. A kennel of the beſt hounds in *Great Britain* are not all alike: ſome are good for trailing and ſtarting; others excellent when the hare is on foot; others again, for hitting off defaults, running the double, or hot foil, or making good the hard ways.

Some huntſmen, the inſtant they find where a hare has relieved, trouble themſelves not at all about trailing to her, but proceed with the company to threſhing the hedges for a wide compaſs, many of whom, being ſo ſparing of their pains, as often beat over, as beat a hare up. But trailing fairly and ſtarting, is the niceſt part of the whole paſtime, provided wind and weather permit.

It is an undetermined point at trail or cold hunting, whether the dogs challenge from any particular effluvia that tranſpired from the feet of a hare, or remains of breath, that in her feeding and exerciſe intermixed with and ſoiled the paſture and herbage. Was it from the foot alone, the moiſt path would be eaſier to challenge upon than the verdant ſward.

If the hounds challenge on the relief, it is a point of judgment not to let them puzzle and ſtick, but to rate them together, and to make it good round the fences the ſooner the better. Now the huntſman muſt depend abſolutely on his dogs; the tender-noſed hound generally hits it firſt, and is very often unjuſtly deemed a babbler, becauſe a tougher dog does not make good what he opens upon; whereas the difference too often is, that one hound's noſe is ſo exquiſitely delicate, as to enjoy a ſcent twice as ſtale as another.

Obſerve ſome one or two open cheerily, the whole pack runs in, not one, for want of equal talents, approves. But as they proceed to warmer ſcent, if others gravely undertake to peruſe the caſe, and, on due conſideration, challenge but in ſingle notes, the whole kennel from every quarter hurry, and with general yelp confirm the report; whilſt the aſſiduous huntſman, glad at heart, in oratory of his own, proclaims it good.

It is ſurprizing what a notable confidence preſides among hounds, in proportion to the reality of each other's aſſurances. The moſt rigid ſincere perſon upon the earth, cannot deteſt or leſs credit the notorious cheat or liar, than a ſtaunch hound one that opens falſe, or ſpends his tongue free to little purpoſe.

The notes of the hounds are certain language in the ears of the huntſman, and what he depends upon more than the judgment of all his friends in the field.

According to the length of time a hare has been gone to form, do they more or leſs aſſure him of their likelihood to ſtart. At the moſt diſtant part of her morning's exerciſe, when the tendereſt noſed dog can but touch of the ſcent, the true muſical hound opens ſingle: perhaps a long holding note, or (according to the dog) only what ſome people call a chop. As they gather on towards her, each old ſophiſter confirms his opinion by an additional note, and doubles his tongue. When near her form, and the ſcent lies warm and ſtrong, all double and treble their notes.

Beware of the counter trailing, which may happen when dogs are caſt off, ſo as to challenge about the middle of her works, or nearer the form than the feed; there the ſcent lies ſo equal, that the dogs, over eager and buſy, often hit the heelway, or draw amiſs; this the huntſman muſt judge of by the notes his dogs firſt challenge in. If they double and carry it on counter, they will ſoon ſignify their error, by opening only ſingle; for inſtead of the ſcent lying hotter, and increaſing upon their noſes, it is the contrary, and dwindles to no ſcent at all.

Young hares tread more deep and heavy than old ones, becauſe the younger they are the weaker the joints. At full moon they make moſt work, and go a great diſtance, relieving upon any ſort of feed; eſpecially that which grows within ſhade of the hedge-rows and trees. At this time the buck and doe often aſſociate together.

About this time the huntſman, if he is clever and lucky in this particular, it not only proceeds from eſteem, but that deſirable token of it, field money, which makes many a man neglect his dogs too much, in good trail, to myope about in the hedges and brakes, in expectation of a ſo-ho! To eſpy a hare no rules can be laid down, ſhe generally forms uncertain; whoſoever looks for her, muſt have the idea of a hare ſeated ſtrongly pictured in his mind.

They very ſeldom chuſe to form in high woods in autumn, becauſe the leaves, acorns, and beech-maſt, are continually falling; and in wet weather drops from the trees diſturb them. They rather prefer the dry brake, hedge, or ſtubble.

In *January*, *February*, and *March*, gentlemen hunt in ſome parts till the twenty-fifth, the ſeat moſt uncertain, and wander ſuch a vaſt circuit, an indifferent huntſman may trail all day long, and not ſtart. What adds to their uncertain forming, beſides the ſeaſon of bucking, is, they are ſo liable under warm dry hedges and brambles to be peſtered with piſmires, or moleſted with vipers, and ſuch vermin, that they prefer the open fields and plowed lands.

The huntſman ſhould now lay in his dogs well; rather whiſper than bellow to them, till they undertake it, and go on full cry. Follow at a due diſtance, and as occaſion requires, recheat them: if you have not a horn call them two or three times together, ſoftly! ſoftly! for nought but general emulation reigns, ſire with ſon, and ſon with ſire contend; impetuous drive the dogs. Beware the inexperienced ſportſman, whether on foot or horſeback,

horſeback, be ſure check his forwardneſs; many people think a chief part of hunting conſiſts in hallooing loud, and running, or riding hard, but they are miſtaken, and ſuch perſons, gentle or ſimple, muſt not be offended if the huntſman ſwears at them; he has a right to do ſo. No tongue can be allowed but his, nor, at this time, no foot more forward than his own.

A cloſeneſs on the dogs, it is well known, hurries them too much, being apt of themſelves, in their firſt heat of mettle, to overſhoot the game. Many hours ſad ſport has happened from driving the hounds too faſt, and confounding them with the hallooing of the company, or a noiſy blockhead of a huntſman or whipper-in.

As puſs takes her circuit, judgment is often made of her gender. A buck gives ſuſpicion by beating the hard paths, ſtony highways, and taking a ring of a large extent in proportion to the compaſs of his feed and exerciſe, which may be gueſſed at, from the quantity of ground the dog trailed over. It being worthy of notice, that in the progreſs of the chaſe, a hare will go over great part of the trailed land, and viſit her works of the preceding night and morning, unleſs ſhe takes endways, which after a ring or ſo, a buck is apt to do; and loiter a vaſt way on freſh ground, without offering to return.

The doe now and then doubles in a ſhort ſpace, and ſeldom holds an end, unleſs knit; or at the end of the ſeaſon has kindled. At ſuch times ſhe often runs forward; and ſcarce ever returns to her young, or eſcapes with life; being naturally weak and unfit for fatigue.

Yet notwithſtanding all that can be advanced, both ſexes regulate their conduct, much according to the ſeaſon and weather. After a rainy night, in a woody country, neither buck nor doe cares to keep the covert, the wet and drops that hang on the ſprays offend them: therefore they hold the highways or ſtony lanes; for as the ſcent naturally lies ſtrong, they beat the roads that take the leaſt: not that a hare judges upon what ſoil the ſcent lies weakeſt, it is her ears that chiefly direct her; for the hounds being oftener at default on the hard paths than the turf, ſhe finds herſelf not ſo cloſely purſued, by being not much alarmed with the continued cry of the dogs at her heels. The larger the cry, the more ſhe is terrified, and faſter ſhe ſpeeds; the certain effect of which is a heart broken ſooner than with a kennel, in number and goodneſs equal, that ſpent their tongues leſs free.

The ſame principle directs her to ſeek the covert in autumn, when the ground is dry, and wind bleak and cold at north or eaſt; then puſs runs the paths that are covered with leaves, which are ſo continually falling and blowing about, the beſt hound can make but little of her; therefore her alarms being not of long continuance, but ſeldom and ſhort, ſhe reſts contented where ſhe is leaſt diſturbed.

If a hare is trailing to form, on that depends great part of the ſucceſs of the hunt if ſhe is beat up; the firſt ring is a foundation for the ſucceeding paſtime, all the tucks and doubles ſhe afterwards makes, being, in a great meaſure, like the firſt.

According to the ground ſhe runs, the fieldmen are to ſtation themſelves; no two are to ſtand prating together; let each purſue the method he thinks beſt for aſſiſting the dogs, and his own diverſion. This is the time to give proof of good judgment.

If any perſons are lying back, or guarding the ſoil, it is recommended to ſtand alone, as quiet and private as poſſible. Above all, obſerve the wind. Whoever ſits in the wind, a hundred to one he does not ſee the hare, unleſs, at a great diſtance, ſhe drops back, or leaps aſide, for the reaſons before obſerved.

On ſight of the hare, and ſhe happens to *quat*, ſilence will be an argument of great prudence; if the dogs are at default, let them remain ſo, but if ſhe goes forward and will ſpeed, the ſingle view-halloo, if the huntſman is within hearing, is allowable, in order to encourage and give him information what part ſhe bears for.

Beware, above all things, the vile practice of hallooing off the hounds, to lay them in after a view; leaving unhunted ground is the worſt thing that can poſſibly happen. Beſides, it not only ſpoils the dogs, and accuſtoms them at every fault to liſten for the halloo, but it is foul ſport and condemnable.

By this means, if ſhe doubles, he will certainly prick her upon ſome of thoſe places again and again, and be of ſingular uſe to the hounds, in drawing the hot ſoil. As he pricks her, let him bruſh it out, and re-ſmooth the places; this is the beſt method of treading a foil, and if done with judgment, no hare that holds her foiling can eſcape, if the huntſman is allowed to put it in practice.

It is a rule among ſportſmen, when a hare runs the double, to ſet people to it backwards, in order to meet and oblige her to take freſh ground, the conſequence of which often has been, that having met and hooped her, ſhe has redoubled back a few rods, and leaped off into ſome hedge or brake, and there *quat*, till the dogs (confounded in the midſt of two equal burning heats) paſs her, and come to the dead default.

TRAIN SCENTS [with Hunters] a dead hare or cat dragged along the ground for the training of hounds.

TRAMEL, a machine for teaching a horſe to amble, which is formed after the following manner:

The ſide ropes muſt be made of the beſt, fineſt, and ſtrongeſt packthread, ſuch as *Turkey* thread, and twiſted by the rope-maker into a delicate ſtrong cord, yet muſt not be above the bigneſs of a ſmall jack line, with a nooſe or loop at each end, as ſtrong as poſſible can be made; neither ſhould they be twiſted too hard, but gently and with a yielding quality, which will bring the motion more eaſily on, and prevent the tramel from breaking.

The ſide-ropes muſt be in length thirty ſix inches for a horſe of an ordinary ſtature, and either longer or ſhorter, according to his ſize, and ſo equal one

one with another, that you cannot discern any difference.

1. The hose which must be placed in the small of the fore-leg, and the small of the hinder-leg above the pastern-joint, must be made of fine girth-web, that is soft and pliant, and joined with double cotton.

Over the girth-web must be fastened strong tabbs of white neat's-leather well tallowed, suited to an even length, and stamped with holes at equal distances, which may pass through the nooses of the side ropes, and be made longer or shorter at pleasure, with very strong buckles.

These hose are also to be made fast about the horse's legs, with small buckles, and the hose of the girth should be four inches in length, and the long tabbs with the large buckles ten inches.

3. The back-band which is fit for no other use but to bear up the side ropes, should, if you tramel all four legs, be made of fine girth-web, and lined with cotton; but if you tramel but one side, then a common tape will serve, taking care that it carries the side ropes in an even line, without either rising or falling: for if it rises it shortens the side-rope, and if it falls there is danger of its entangling.

As to the Use of the TRAMEL; bring the horse into an even smooth path, and he being made fast about his legs, untie the long tabbs of his near fore-leg and near hinder-leg; then put to them the side-rope, and take care that the horse stand at that just proportion, which nature herself has formed him in, without either straining or enlarging his limbs, and in that even and just length, stay the side-rope by the small tape fastened up to the saddle; then with your hand on the bridle, straightening his head, put him gently forward, and (if there be occasion) let another person put him forward also, and so force him to amble up and down the road with all the gentleness that may be, suffering him to take his own time, that he may thereby come to understand his restraint, and what motion you would have him perform.

And although he should snapper or stumble, or perhaps fall now and then, yet it matters not; do you only stay his head, give him leave to rise, and put him forwards again with all gentleness, till the horse finding his own fault, and understanding the motion, he will become perfect, and amble in your hand to your satisfaction.

For the doing this with the more ease and less amazement to the horse, it will not be amiss if you give the side-ropes more length than ordinary at his first tramelling, both that the twitches may be less sudden, and the motion coming more gently, the horse may sooner apprehend it.

But as soon as he is arrived at any perfection in the pace, put the sides to their true length, for an inch too long is a foot too slow in the pace, and an inch too short, will cause rolling, a twitching up of the legs, and indeed, a kind of downright halting.

When the horse will thus amble in your hand, perfectly with the tramel on one side, you may then change it to the other side, and make him amble in your hand as before; and thus you must do, changing from one side to another, till with this half-tramel he will run and amble in your hand without snappering or stumbling, both readily and swiftly.

Having attained to this, which may be effected in two or three hours labour, if there be any tractableness, you may put on the whole tramel, with the broad, flat back-band, tramelling both sides equally, and so run him in your hand at the utmost length of the bridle along the road several times; then pause, cherish him, and to it again: and ply him thus, till you have brought him to amble swiftly, truly, and readily, when, where, and how you please.

Then put him upon uneven and uncertain ways, as up hill and down hill, where there are clots and roughness, and where there is hollowness and false treading.

When the horse is become perfect in your hand upon all these motions, you may set a boy or groom upon his back, making him amble, while you stay his head to prevent danger, or to observe how he strikes.

Afterwards mount yourself, and with all gentleness increase his pace more and more, till he becomes perfect; and as you did before with your hand, so do now on his back, first with the half tramel, then with the whole, changing the tramel often from the one side to the other, and also change the ground, which should be done two or three times a day.

When you have brought the horse to perfection, you may lay aside the tramel and ride him without it; but do this in a highway, and not in a private smooth road, which affords but a deceitful pace, and will be left upon every small wearinesS; therefore pace him on the highway three or four miles in a morning, and in case you find him forsake his gait, either through wearinesS, peevishness, or ignorance, always carrying the half tramel in your pocket, alight and put it on; and thus continue to exercise him, giving him ease now and then, and at last bring him home in his true pace.

TRAMEL. An instrument, or device, sometimes of leather, more usually of rope, fitted to a horse's legs, to regulate his motions, and form him to amble.

TRAMELLED. A horse is said to be tramelled that has blazes or white marks upon the fore and hind-feet on one side, as the far foot before and behind.

He is so called from resemblance of the white foot to the hoses of a half tramel.

Cross-TRAMELLED Horse, is one that has white marks on two of his feet that stand cross-wise, like St. *Andrew*'s cross; as in the far fore-foot, and the near hind-foot; or in the near foot before, and the far foot behind.

TRAMEL-NET, is a long net for the taking great and small fowl by night, in champaign countries; much like the net used for the low-bell; both in shape, bigness, and meshes.

It is to be spread on the ground, so that the nether or

farther end of it, plumbed with ſmall plummets of lead, may lie looſe thereon; then bearing up the other part, by the ſtrength of men at the foremoſt ends, only trail it along the ground, not ſuffering that end which is borne up to come near the ground by at leaſt a yard; when this is done, at each ſide of the net muſt be carried great blazing lights of fire, by which men ſhould go to raiſe the birds, and as they riſe under the net, ſo take them; after which manner you may paſs over the whole corn-field, or rather champaign ground. *See* LOW-BELL *and* HAND-NET.

TRANCHEFILE, is the croſs-chain of a bridle that runs along the bitt-mouth from one branch to the other.

TRAVELLING-HORSE. A horſe fit for journeying, the choice of which conſiſts chiefly in his ſtrength; you are to obſerve that his joints be ſtrong, his paſterns ſhort and ſtraight, without bending in his going, his hoofs tough and hollow; let his nature be temperate, neither too furious nor too dull; and being thus qualified, let him be fed with good hay in the winter, and good graſs in the ſummer; let his provender be good dry oats, peas, beans, or bread, according to his ſtomach, whereof in time of reſt, half a peck at a watering is ſufficient, but in time of labour, as much as he can eat with an appetite.

When you travel him, let him be watered two hours before you ride; then rub, dreſs, and luſtily feed him, after which bridle and let him ſtand half an hour before you back him; and on your journey let him be fed betimes for all night, that he may the ſooner take his reſt; and in the morning travel him moderately, till his wind be racked, and his limbs be warmed, and then proceed as your affairs require; but at night be ſure to water him two miles before you come to your journey's end, then the warmer you bring him to his inn the better; neither walk nor waſh him, the one begets cold, and the other foundering in the feet or body, but ſet him up warm, well ſtopped and well rubbed with clean litter; and give him no meat while his outward parts are hot, or moiſt with ſweat, as the ear-roots, the flanks, the neck, or under his chaps; but being dry, rub him, and feed him according to the goodneſs of his appetite, which to get in him, change his food, or waſh his tongue or noſtrils with vinegar, wine, ſalt, or warm urine: again, ſtop not his feet with cow-dung, till he be ſufficiently cold, and that the blood and humours which were diſperſed be ſettled in their proper places.

Look well to his back that the ſaddle hurt him not, the girths that they do not gall, and his ſhoes that they are large, faſt on, and eaſy: let him neither eat or drink when hot, nor preſently after travel; as to labouring of him, let it be moderate, when the weather is neither extreme hot or cold, that ſo you may avoid extreme heats, and ſudden colds, and travel him not too late, that you may ſee him well dried and fed, before you take your own reſt; neither take the ſaddle ſuddenly off his back.

He may be fed with horſe bread, made of clean beans, peaſe, and vetches, which are very good, and all his meat and drink ſhould be exceeding clean and ſweet; ſtanding water is better for him than river water, which is too piercing: he ſhould be tied in the ſtable with two reins, and often rode on ſtony ways, in order to his better feeling his feet, and hardening his hoofs.

The beſt litter is a bed of wheat-ſtraw, above his knees, though barley-ſtraw is the ſofteſt, but a horſe will covet to eat that which is not wholeſome for him; whereas wheat-ſtraw, though it be not ſo ſoft to lie upon, yet it is wholeſome for him to eat; and as for oat-ſtraw, it is the beſt to lie upon.

As for the dreſſing part, let him be curried twice a day, and be rubbed well with the hands with a rubber; his head ſhould be rubbed with a wet cloth, and his cods rubbed with a dry one, to prevent his being ſcabby between his legs; and his foretop, mane, and tail ſhould be combed with a wet mane-comb, obſerving where the horſe's hair is thinneſt, to curry the gentleſt.

He ſhould be clean and dry in the ſtable, no ſwine lying near it, nor any poultry ſuffered to come within it; and for the ſtable it ſhould always be light, towards the ſouth and north, yet ſo that the north windows in winter may be ſhut cloſe at pleaſure; the planchers ſhould lie even and level, that the horſe may ſtand at eaſe, and not prove lame by too much oppoſing his hinder-feet; there ſhould be no mud-wall within his reach, for he will naturally covet to eat it, than which nothing is more unwholeſome.

In feeding, give him chopt wheat-ſtraw amongſt his provender, it being a great cleanſer of the body, and let the hay-bottles be ſmall, but tied very hard; for ſo your horſe will eat with a better ſtomach, and make leaſt waſte; and as it will prove to be very wholeſome to ſprinkle water upon his hay, ſo fenugreek is ſovereign upon his provender, the firſt being good for wind, and the other for worms. Let him be exerciſed daily, which will beget him a good appetite to his meat.

You may once a year purge him with graſs or green blades of corn, called forrage, for fifteen days together; but before you purge him in any caſe, let him blood, and while he is purging, let him have no provender: and as a horſe after travel has always more blood than any other beaſt whatever, it is therefore good to take blood from him, in order to prevent the yellows or other diſtempers which may enſue.

In caſe you ſhould come late to your inn, ſo that the journey be great and preſſing, and that the horſe refuſes to eat till he has drank, though he be hot, then let his drink be milk given him in the dark, leſt the whiteneſs make him refuſe it, this being both cordial and pleaſant; but if you cannot get milk enough, then mix it with water lukewarm; and if the horſe by labour or any ſurfeit be brought low, lean, and weak, give him to drink mare's milk for many days together, which will ſtrengthen him very much.

When he is at reſt in the winter, water him between ſix and ſeven in the morning, and four and five in the evening, but it is not good to waſh him when he is hot, yet he may be waſhed above his knees, provided you do not waſh his belly, and that you ride him afterwards, and ſo ſet him up and dreſs him; and the purer the

the water wherein he is washed is, the wholesomer it is, so that it be not extreme cold; if the horse be sick, he must have his water at four times, and not as much as he will drink at once; let him stand two or three hours without meat; and always observe that rubbing much, hard, and well, doth preserve and keep both legs and body in strength, and he delights much therein, and it does much better than a great deal of meat.

In travelling, alight at every steep hill, both to refresh the horse and yourself, look often to the saddle, and his shoes; and after his journey, pick and cleanse the soles of his feet, stuffing them well with ox-dung, as before directed, and anoint his legs with grease, tar, and turpentine. *See* JOURNEY.

TRAVES, a kind of shackles for a horse, that is in teaching to amble or pace.

TRAVERSE, a horse is said to traverse when he cuts his tread crosswise, throwing his croup to one side, and his head to another.

TRAVE, } A place inclosed with rails for shoeing
TRAVISE, } an unruly horse.

TRAVICE, is a small inclosure or oblong quadrangle, placed before a farrier's shop, and consisting of four pillars or posts kept together by cross poles; the inclosure being designed for holding and keeping in a horse that is apt to be unruly or disorderly in time of shoeing, or of any operation.

TREES. A composition having been invented by Mr. WILLIAM FORSYTH, for the preservation of fruit and forest trees, and an examination having taken place, which proved its efficacy, on May 11, 1791, his Majesty was graciously pleased to grant a reward to Mr. FORSYTH, for disclosing the method of making and using that composition; and the following are his directions for that purpose: Take one bushel of fresh cow-dung, half a bushel of lime-rubbish of old buildings, (that from the cielings of rooms is preferable) half a bushel of wood-ashes, and a sixteenth part of a bushel of pit or river sand. The three last articles are to be sifted fine before they are mixed; then work them well together with a spade, and afterwards with a wooden beater, until the stuff is very smooth, like fine plaister used for the ceilings of rooms.

The composition being thus made, care must be taken to prepare the tree properly for its application, by cutting away all the dead, decayed, and injured part, till you come to the fresh sound wood; leaving the surface of the wood very smooth, and rounding off the edges of the bark with a draw-knife, or other instrument, perfectly smooth, which must be particularly attended to; then lay on the plaister, about one eighth of an inch thick, all over the part where the wood or bark has been so cut away, finishing off the edges as thin as possible. Then take a quantity of dry powder of wood-ashes, mixed with a sixth part of the same quantity of the ashes of burnt bones; put it into a tin-box, with holes in the top, and shake the powder on the surface of the plaister, till the whole is covered over with it, letting it remain for half an hour, to absorb the moisture; then apply more powder, rubbing it on gently with the hand, and repeating the application of the powder, till the whole plaister becomes a dry smooth surface.

All the trees cut down near the ground should have the surface made quite smooth, rounding it off in a small degree, as before-mentioned; and the dry powder, directed to be used afterwards, should have an equal quantity of alabaster mixed with it, in order the better to resist the dripping of trees, and heavy rains.

If any of the composition be left for a future occasion, it should be kept in a tub, or other vessel, and urine of any kind poured on it, so as to cover the surface, otherwise the atmosphere will greatly hurt the efficacy of the application. Where lime-rubbish of old buildings cannot be easily got, take powdered chalk, or common lime, after having been slaked a month at least.

As the growth of the tree will gradually affect the plaister, by raising up its edges next the bark, care should be taken, where that happens, to rub it over with your finger when occasion may require (which is best done when moistened by rain), that the plaister may be kept whole, to prevent the air and wet from penetrating into the wood.

A Way to prevent Hares, Rabbits, &c. from peeling off the Bark of young Trees.

Provide a quantity of grease, put it over the fire, and boil it with tar, stirring in the latter till they are well mixed; then take a brush, and rub the mixture over the body of your tree, higher than the reach of the animals. This should be done in the month of *November*, as it is in the winter-time only that animals are obliged, through hunger, to feed on the bark of trees.

TREAD OF A HORSE is good, if it be firm and without resting upon one side of the foot more than upon the other, or setting down the toe or heel one before the other: if he sets his heel first to the ground, then it is a sign that he is foundered in his feet, but if he sets his toes first to the ground, it shews that he has been a draft horse: therefore the whole foot should be set down equally at the same instant of time, and turned neither out nor in.

TREPINGER; is the action of a horse who beats the dust with his fore-feet in managing, without embracing the volt; and who makes his motions and times short, and near the ground, without being put upon his haunches.

This is generally the fault of such horses as have not their shoulders supple, and at liberty, and withal have scarce any motion with them.

A horse may trepinger in going upon a straight light.

TRIDE, a word signifying short and swift.

A tride-pace, is a going of short and swift motions, though united and easy.

A horse is said to work tride upon volts, when the times he makes with his haunches are short and ready. Some apply the word only to the motion of the haunches.

TRIP, OR STUMBLE; a horse is said to trip when he makes a false step.

TRIP,

TRIP (with Hunters). A herd, or company of goats.

TRIP. A ſhort journey.

TRISTA, } A privilege by which a perſon is freed
TRISTIS. } from his attendance on the lord of a foreſt, when he goes a hunting; ſo as not to be obliged to hold a dog, follow the chaſe, or ſtand at a place appointed.

TRIMMER-ANGLING is very uſeful in a mere, canal, or pond, and even in the ſtill part of a river. This requires a round cork, ſix inches in diameter, with a groove on which to wind up your line, except ſo much of it near the hook as will allow the bait to hang about mid-water, and likewiſe ſo much of the other end as will reach to the bank, or a buſh, where it is to be faſtened. In this poſition you may leave it to take its chance, whilſt you are angling elſewhere. As ſoon as the pike takes the bait, and runs away with it, the line unwinds itſelf off the trimmer, without giving him the leaſt check. However, when you come to take up your line, give it a jerk, as in other fiſhing, and then your prey will be more ſecure. This is a good method of fiſhing in the night. *See* ANGLING.

To TROAT, (with Sportſmen) ſignifies to cry as a buck does at rutting time.

TROACHINGS, (with Hunters) the ſmall branches on the top of a deer's head.

TROLL. A certain way of fiſhing for pikes with a rod, the line of which runs out in a reel. *See fiſhing for* PIKE.

TROT; is one of the natural paces of a horſe, which is two legs up in the air, and two upon the ground, at the ſame time croſs-wiſe, or in the form of a St. *Andrew's* Croſs.

As in the amble, the horſe is to be ſtayed upon the hand, and preſſed forward with the calves of the legs of the rider, one after the other; ſo, on the contrary, if the horſe be walking, and you would have him trot, you muſt ſlack your bridle-hand, and preſs him on with both your calves, at one and the ſame time; which will oblige him to advance the hind leg of the ſide with which he did not lead, ſooner than otherwiſe he would do, and ſo move at the very ſame inſtant with the fore-leg of that ſide with which he began to lead, which is the true action of the trot; that is, the hind leg of one ſide and fore leg of the other, at one and the ſame time.

The TROT OF A HORSE is good if it be firm, without reſting upon one ſide of the foot before the other, or ſetting down one toe or heel before the other: ſome horſes, notwithſtanding they raiſe, ſtay, and tread well, have a bad walk, and therefore you are to take notice whether he walks quickly, and alſo lightly on the hand, not preſſing or reſting too much on the bitt, but always changing a point, keeping his head high, with a quick motion of his ſhoulders.

He walks eaſily when his fore and hind feet make but as it were one motion; and ſurely, when he treads firm and ſure, and lifts up his legs indifferently high; but if he does not bend them enough, he will be cold in his walk (as they call it) and apt to ſtrike upon the ſtones and clods.

TROUSSEQUIN, is a piece of wood, cut archwiſe, raiſed above the hinder bow of a great ſaddle, which ſerves to keep the bolſters firm.

There are ſome *Dutch* ſaddles, called *ſelles rases*, which have a low trouſſequin.

TROUT. A delicious freſh water fiſh, which is obſerved to come in, and go out of ſeaſon, with the ſtag and buck, and ſpawns about *October* and *November*, which is the more admirable, becauſe moſt other fiſh ſpawn in warm weather, when the ſun by its heat has cheriſhed the earth and water, making them fit for generation. There are ſeveral ſorts of this fiſh highly valuable; ſuch as the fordage-trout, the armerly-trout, the bull-trout, in *Northumberland*, &c. but it is obſervable, that the red and yellow trouts are the beſt; and as to their ſex, the female has the preference, having a leſs head and deeper body than the male: by their large back you may know that they are in ſeaſon, with the like note for all other fiſh. The trout is of a more ſudden growth than other fiſh: he lives not ſo long as the pearch and divers other fiſhes do, as Sir FRANCIS BACON hath obſerved in his hiſtory of life and death.

They are all the winter ſick, lean, and unwholeſome, and often found to be louſy: theſe trout-lice are ſmall worms, with big heads, ſticking cloſe to the fiſh's ſides, and ſucking moiſture from him that gave them being; neither is he freed from them till the ſpring, or beginning of ſummer, at which time his ſtrength increaſes; then he deſerts the deep ſtill waters, and betakes himſelf to gravelly ground, againſt which he ceaſes not rubbing himſelf till he is cleanſed from that louſineſs: from that inſtant he delights to be in ſharp ſtreams, and ſuch as are ſwift, where he will lie in wait for minnows and *May* flies; at the latter end of which month he is in his prime, being fatteſt and beſt.

They are uſually caught with a worm, minnow, or fly, either natural or artificial. There are ſeveral ſorts of worms which are baits proper for the angler; as the earth-worm, dung-worm, the maggot or gentle; but for the trout, the lob-worm and brandling are accounted the beſt, or ſquirrel-tail, having a red head, ſtreaked down the back, and a broad tail. Take notice, that with whatever ſort of worms you fiſh, they are better for keeping, which may be in an earthen pot with moſs, which muſt be changed once in three or four days in the ſummer, and in twice as long time in the winter.

To avoid confuſion, it may be neceſſary to remark, that the ſame kind of worm is, in different places, known by different names: thus the marſh and the meadow-worm, are the ſame; and the lob-worm, or twachel, is alſo called the dew-worm and the garden-worm; and the dock-worm is, in ſome places, called the flag-worm.

The tag-tail is found in *March* and *April*, in marked lands or meadows, after a ſhower of rain, or in a morning, when the weather is calm, and not cold.

To

To find the oak-worm, beat on an oak-tree, that grows over a highway or bare place, and they will fall for you to gather.

To find the dock-worm, go to an old pond or pit, and pull up ſome of the flags; ſhake the roots in the water, and amongſt the fibres that grow from the roots you will find little huſks, or caſes, of a reddiſh or yellowiſh colour; open theſe carefully with a pin, and take from thence a little worm, pale and yellow, or white, like a gentle, but longer and ſlenderer, with rows of feet down his belly, and a red head: this is the dock or flag-worm. An excellent bait for grayling, tench, bream, carp, roach and dace.

You are to take notice, that of the winds the ſouth wind is ſaid to be beſt. Next to that, the weſt wind is believed to be the beſt. The fiſh lies or ſwims nearer the bottom, and in deeper water in winter than in ſummer; and alſo nearer the bottom in any cold day, and then gets neareſt the lee-ſide of the water.

Fiſh for him with a long line, and not a little hook, and let him have time to gorge your hook, for he does not uſually forſake it, as he oft will in the day-fiſhing: and if the night be not dark, then fiſh ſo with an artificial fly of a light colour, and at the ſnap: he will ſometimes riſe at a dead mouſe, or a piece of cloth, or any thing that ſeems to ſwim acroſs the water, or to be in motion.

The trout delights in ſmall purling rivers and brooks, with gravelly bottoms and a ſwift ſtream; his haunts are an eddy, behind a ſtone, a log, or a bank that projects forward into the river, and againſt which the ſtream drives; a ſhallow between two ſtreams, or, towards the latter end of the ſummer, a mill-tail. His hold is uſually in the deep, under the hollow of a bank, or the root of a tree.

The trout ſpawns about the beginning of *November*, and does not recover till the beginning of *March*.

WALTON has been ſo particular on the ſubject of trout fiſhing, that he has left very little room to ſay any thing by way of annotation with reſpect to baits, or the method of taking this fiſh; yet there are ſome directions and obſervations pertinent to this ſubject, which it would not be conſiſtent with the intended copiouſneſs and accuracy of this work to omit.

When you fiſh for large trout or ſalmon, a winch will be very uſeful: upon the rod with which you uſe the winch, whip a number of ſmall rings of about an eighth of an inch diameter, and at firſt about two feet diſtant from each other; but afterwards diminiſhing gradually in their diſtances, till you come to the end: the winch muſt be ſcrewed on to the butt of your rod, and round the barrel let there be wound eight or ten yards of wove hair or ſilk line: when you have ſtruck a fiſh that may endanger your tackle, let the line run, and wind him up as he tires.

You will find great convenience in a ſpike made of a piece of the greater end of a ſword-blade, ſcrewed into the hither end of the butt of your rod: when you have ſtruck a fiſh retire backwards from the river, and, by means of the ſpike, ſtick the rod perpendicular in the ground; you may then hold on the line, and draw the fiſh to you, as you ſee proper.

When you angle for a trout, whether with a fly or at the ground, you need make but three or four trials in a place; which, if unſucceſsful, you may conclude there are none there.

In the night the beſt trouts come out of their holes; and the manner of taking them is on the top of the water with a great lob or garden-worm, or rather two, which you are to fiſh with in a place where the waters run ſomewhat quietly, for in a ſtream the bait will not be ſo well diſcerned. In a quiet or dead place near to ſome ſwift, there draw your bait over the top of the water to and fro, and if there be a good trout in the hole, he will take it, eſpecially if the night be dark: for then he is bold, and lies near the top of the water, watching the motion of any frog or water-rat, or mouſe, that ſwims betwixt him and the ſky; theſe he hunts after, if he ſees the water but wrinkle, or move in one of theſe dead holes, where theſe great old trouts uſually lie, near to their holds; for you are to note, that the great old trout is both ſubtil and fearful, and lies cloſe all day, and does not uſually ſtir out of his hold, but lies in it as cloſe in the day, as the timorous hare does in her form: for the chief feeding of either is ſeldom in the day, but uſually in the night, and then the great trout feeds very boldly.

Further Directions for taking a Trout.

If you would do this with ground-bait, in the firſt place you muſt have a neat taper rod, light before, with a tender hazle top. You may angle with a ſingle hair of five lengths, the one tied to the other, for the bottom of the line, and a line of three-haired links for the upper part; and ſo, if he have room enough, you may take the largeſt trout in the river.

He who angles with a line made of three-haired links at the bottom, and more at top, may take trouts; but he who angles with a ſingle hair, ſhall take five to his one; for this fiſh is very quick-ſighted, therefore the angler muſt keep out of ſight, whether it be day or night, and he muſt angle with the point of his rod down the ſtream.

He muſt begin to angle in *March*, with ground baits all day long; but if it prove clear and bright, he muſt take the morning and evening, or elſe his labour will be in vain.

He that angles with ground-bait, muſt fit his tackle to his rod, and begin at the upper end of the ſtream, carrying his line with an upright hand, feeling his plummet running on the ground ſome ten inches from the hook, plumbing his line according to the ſwiftneſs of the ſtream that he angles in; for one plummet will not ſerve for all ſtreams.

For his bait: let him take the red knotted worm, which is very good where brandlings are not to be had.

The minnow (or as ſome call it, the penk) is a ſingular bait for a trout, for he will come as boldly at it as a maſtiff dog at a bear. It will be advantageous to him to uſe a line of three ſilks and three hairs twiſted for the uppermoſt part of the line, and two ſilks and two hairs twiſted for the bottom, next the hook,

hook, with a ſwivel nigh to the middle of his line, with an indifferent large hook.

The minnow is not eaſily found and caught till *March*, or in *April*, for then he appears firſt in the river, nature having taught him to ſhelter and hide himſelf in the winter in the ditches that are near to the river, and there both to hide and keep himſelf warm in the mud or in the weeds, which rot not ſo ſoon as in a running river: in which place if he were in winter, the diſtempered floods that are uſually in that ſeaſon, would ſuffer him to take no reſt, but carry him headlong to mills and weirs to his confuſion. And of theſe minnows, firſt you are to know, that the biggeſt ſize is not the beſt; and next, that the middle ſize and the whiteſt are the beſt: and then you are to know, that your minnow muſt be ſo put on your hook, that it muſt turn round when it is drawn againſt the ſtream: and that it may turn nimbly, you muſt put it on a big-ſized hook, which is thus: put your hook in at his mouth and out of his gill, then having drawn your hook two or three inches beyond or through his gill, put it again into his mouth, and the point and beard out at his tail, and then tie the hook and his tail about very neatly with a white thread, which will make it the apter to turn quick in the water: that done, pull back that part of your line which was ſlack when you put your hook into the minnow a ſecond time; ſo that it ſhall faſten the head, and the body of the minnow ſhall be almoſt ſtraight on your hook; this done, try how it will turn by drawing it acroſs the water, or againſt a ſtream, and if it do not turn nimbly, then turn the tail a little to the right or left hand, and try it again till it turn quick; for if not, you are in danger of not catching any thing; for it is impoſſible that it ſhould turn too quick: and in caſe you want a minnow, then a ſmall loach or a ſtickle-back, or any other ſmall fiſh that will turn quick, will ſerve as well.

If you fiſh for a trout by hand on the ground, take a lob or garden-worm, and put your hook into it a little above the middle, and out again a little below the ſame; then draw your worm above the arming of your hook, making your firſt entrance at the tail, that the point of the hook may come out at the head.

When you fiſh with the minnow, chuſe the whiteſt and middle-ſized, thoſe being the beſt, and ſo place him on your hook, that he may turn round when he is drawn againſt the ſtream.

The beſt way of baiting with the minnow is thus: put your hook in at his mouth, and out at his gill, drawing it through above three inches; then put the hook again into his mouth, and let the point and beard come out at his tail; then tie the hook and his tail about with a fine white thread, and let the body of the minnow be almoſt ſtraight upon the hook: this done, try againſt the ſtream whether it will turn; which it cannot do too faſt: for want of a minnow, a ſmall loach, or ſtickle-back will ſerve.

The angler muſt angle with the point of his rod down the ſtream, drawing the minnow up the ſtream by little and little, near the top of the water; the trout ſeeing the bait, will come more fiercely at it; but the angler muſt not then preſently ſtrike; this is a true way without lead, for many times they will forſake the lead, and come to the minnow. When you fiſh for a trout with a worm, let your line have ſo much, and not more lead than will fit the ſtream in which you fiſh; that is to ſay, more in a great troubleſome ſtream than in a ſmaller that is quieter; as near as may be, ſo much as will ſink the bait to the bottom, and not more.

How to angle with a Fly for a Trout.

In the firſt place let the angler fit himſelf with a hazle of one piece, or two ſet conveniently together, light and pliable,

The lower part of his line, next the fly, muſt be of three or four haired links; but if he can attain, as aforeſaid, to angle with a ſingle hair, he will meet with more profit and pleaſure.

Before he begins to angle, having the wind on his back, let him try how far he can caſt his line, or at what length his fly, and let him take care that the fly fall firſt on the water; for if any of the line light on the water, he had better to have ſtood ſtill, than to have thrown at all.

He muſt always caſt down the ſtream, with the wind behind, and the ſun before him; it is a great advantage to have either ſun or moon before him.

March is the month for beginning to angle with the fly; but if the weather prove windy or cloudy, there are ſeveral ſorts of palmers that are good at that time: the firſt is the black palmer, ribbed with ſilver: the ſecond a black palmer with an orange tawny body: thirdly, a palmer whoſe body is all black: laſtly, there is a red palmer ribbed with gold, and a red hackle, mixed with orange crewel.

Theſe flies ſerve all the year long, morning and evening, whether windy or cloudy weather, but if the air proves ſerene, he may then imitate the hawthorn fly, which is all black and very ſmall; the ſmaller the better.

He may alſo uſe other flies, as the *May* fly, *&c.* as his fancy leads him. *See the Article* FLY.

TROUT-COLOURED HORSE, is a white, ſpeckled with ſpots of black, bay, or ſorrel, particularly about the head and neck.

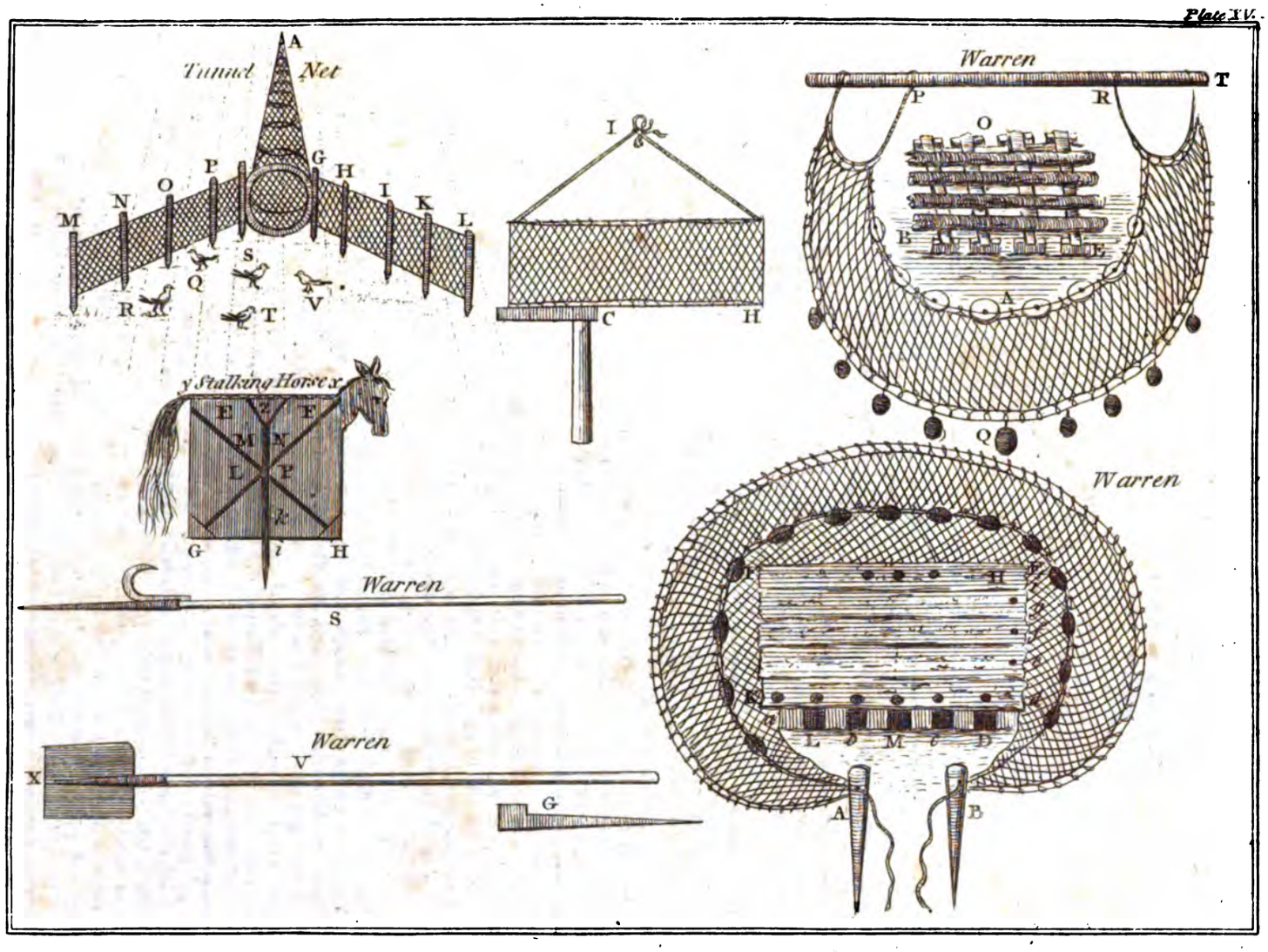
TRUSSED. A horſe is ſaid to be well truſſed, when his thighs are large, and proportioned to the roundneſs of the croup.

A horſe is ſaid to be ill truſſed, when his thighs are thin, and bear no proportion to the breadth of the croup.

TUEL. The fundament of a horſe.

TUEL [with Hunters]. The fundament of any wild beaſt.

The TUMBLER. The name of this dog is derived from the *French*, *Tumbier*, which ſignifies to tumble; and is called *vertagus* in *Latin*, from *vertere*, to turn or tumble, and ſo they do; for in hunting they turn and tumble, winding their bodies about circularly, and then fiercely and violently venturing on the beaſt, do ſuddenly


Tunnel Net
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ſuddenly gripe it at the very entrance or mouth of their holes and receptacles, before they can make any recovery of ſelf-ſecurity.

This dog uſeth alſo another craft and ſubtilty; namely, when he runneth into a warren, or fetches a courſe about a coney-burrow, he hunts not after them, nor does any way affright them; he ſhews no ſpite againſt them, but diſſembling friendſhip, and pretending favour, paſſes by with quietneſs and ſilence, marking their holes diligently, where he is ſeldom deceived.

When he comes to a place where there is a certainty of conies, he couches down cloſe with his belly to the ground, provided always that by his ſkill and policy, the wind be againſt him in that enterprize, and that the conies diſcover him not where he lurketh, by which means he gets the ſcent of the conies, which is carried to him by the wind and air, either going to their holes, or coming out; either paſſing this way, or running that way, and by this circumſpection ſo orders his matters, that the ſilly coney is debarred quite from his hole (which is the haven of his hope, and harbour of his ſafety) and fraudulently circumvented and taken, before he can reach his hole.

Thus having caught his prey, he immediately carries it to his maſter, who waits for the return of his dog in ſome convenient lurking place.

Theſe dogs are ſomewhat leſſer than the hounds, being lanker, leaner, and ſomewhat prick-eared.

By the form and faſhion of their bodies, they might be called mongrel greyhounds, if they were ſomewhat bigger.

But though they do not equal the greyhound in ſize, yet they will in the compaſs of one day, kill as many conies as ſhall be a ſufficient load for a horſe; for craft and ſubtilty are the inſtruments whereby they make this ſpoil.

TUMOURS, OR HARD SWELLINGS IN THE LEGS. When the tumours are hard, and of long continuance, take a pint of the horſe's own urine, or that of a cow; half an ounce of flour of brimſtone, and a dram of alum, boil it away to the conſumption of one half; with this chafe the tumour every morning and evening, then dip a rag into it, and wrap it about. Or,

If there are hard tumours in the leg or thigh, either in the ſpring, autumn, or before *Chriſtmas*, take five pounds of green mallow-root (at other times three pounds of the dried roots) pound them to maſh, boil them gently with five quarts of water in a kettle for two hours, then pour in as much hot water as was boiled away, adding a handful and a half of ſage leaves, and continue to boil it an hour and a half, or two hours longer; then taking the kettle off the fire, incorporate the whole with a pound of honey, and half a pound of black ſoap.

Let it cool till you can bear to thruſt your finger into it, and then add to it a pint of ſtrong brandy.

Foment the ſwelling daily with this bath, and chafe it with a handful of the dregs of it, and walk the horſe for half an hour after it.

If you perceive it tends to a ſuppuration omit both, and apply baſilicon.

TUNNEL-NET. A net for taking partridges, which ſhould not exceed fifteen feet in length, nor be leſs than eighteen inches in breadth, or open for the entrance; *ſee* the annexed cut, which ſhews a tunnel ſpread, its length is from the letter A to G, it muſt be made narrow towards the end A, ſo as to have no more than five or ſix inches in height.

This net muſt be made with a three-twiſted thread, that muſt not be too thick, dye it of a green, yellow, or ruſſet colour; the meſhes ſhould be an inch and a half, or two inches broad, the lower ſhould be three, more or leſs, according to the bigneſs of the meſhes. *See* Plate XV.

To carry on your works, inſtead of meſh G to proceed with, take that on the other ſide at H, and continue working round, and ſo to the ſixth or ſeventh row, where you are to take two meſhes at once in one place only, in order to diminiſh the net; you are to do the ſame thing every fourth row, that the net may become narrow by degrees; and when it comes to the point or end, have no more than eight or ten meſhes round.

When the net is finiſhed, you muſt put into the hind meſhes at the larger end, a pretty ſmooth wooden rod, about the bigneſs of a fuzee or muſket-rammer, of which you muſt make as it were a hoop, and tie both ends together on one another, to keep it tight; you muſt add other ſmaller ones by degrees, at the place marked with the letters F, E, D, C, B, which muſt be ſet at ſuch diſtances from one another, as ſuits the proportion of the length of tunnel; they chooſe to make uſe of theſe circles rather than any other form, becauſe they may eaſily be placed in the bottom, between two ridges of corn or fallow ground: now in order to join or faſten the circles to the net, it will be proper to put them into the row of meſhes round, and with that ſome thread to tie both ends of the hoop together, that they may always be in a good poſture; you muſt faſten to both ſides of the circle of entrance, two ſtakes or pegs, to keep the extended net ſtraight enough; you muſt place another at A, of a foot long, at the end of the net, to keep it ſtraight and ſtiff enough; you muſt make two plain halliers to accompany the tunnel net, whoſe meſhes muſt be lozenge-wiſe, or four ſquare; each hallier muſt be ſeven or eight fathoms long, and when they are made, faſten to them, at two feet diſtance, the pegs M, N, O, P, H, I, K, L, about the thickneſs of a little finger, and a foot and a half long, that ſo they may be ſet on both ſides of the tunnel, when you intend to uſe it.

In order to apply this net for the uſe intended, of taking partridges, when you have found out a covey, take a compaſs, and ſo pitch the net at a good diſtance from them, but ſometimes farther, and at other times nearer, according as the ground happens to be; and then ſurround them with your ſtalking-horſe, or ox, and gently drive them towards the net, not coming on them in a direct line, but by windings and turnings, and ſometimes ſtanding ſtill, as if the horſe grazed; if the partridges make a ſtand and look up, it is a ſign they

 are

are afraid, and intend to take wing, therefore make a ſtand, or a little retreat, and when after a little reſpite you find them quiet, and that they are buſy in ſeeking for food, which is a ſign they are not afraid, you may move nearer to them; and if any ſingle partridge lies remote from the reſt, he muſt be fetched in by taking a circumference about him, and thus they may be driven as it were like a flock of ſheep into a pen; but a live horſe fitted for the ſport, far exceeds the artificial ſtalking-horſe, or ox.

The wings of the tunnel muſt not be pitched on a direct line, but inclining to a ſemi-circle; when the partridges are at the mouth of the tunnel, the old ones will ſtand a while as if to conſider, but preſſing gently on, ſome of the young ones will venture in, and then all the reſt will follow; upon which make haſte to ſecure them from returning back, and making their eſcape.

It will be proper to obſerve here, that the letters Q, R, S, T, V, repreſent the partridges in the cut, and as to the ſtalking-horſe, or ox, or cow, repreſented by the ſecond figure, it ought to be made of a piece of canvas, or linen cloth; X, R, G, H, denote the four feet; they ſew ſmall pieces of the ſame cloth at the four corners X, Y, H, E, F, the pieces muſt be two inches broad and ſquare to put into them, and to hold the two ſticks O, P, that croſs one another, and the top of the fork: the ſticks muſt be long enough to keep the cloth well ſtretched, and are to be tied together when they croſs.

The fork ought to be four feet and a half long at the leaſt, having a ſharp pointed end at I, that goes into the ſmall bit of cloth K, the fork and the two ſticks are tied in the middle at L, a piece of cloth G, Y, if ſewed to the ſide like a cow's head, and of the ſame colour with the reſt of the cloth, having an eye and two horns, if it repreſents an ox, or cow, made of ſome pieces of hat; the tail is made of ſome ſmall twine, thread, or any ſuch thing; at the other end X, there ſhould be a ſtick above at X and Y to keep up the head and tail, which laſt ſhould be at ſome diſtance from the body, that it may wag in moving. M and N are two holes to ſee the partridges through. *See* PARTRIDGE and STALKING-HORSE. *See* Plate XV.

TURKEYS. *See* POULTRY.

TURN. A word commonly uſed by the Riding-Maſters, when they direct their ſcholars to change hands. *See* CHANGE and ENTIRE.

TURNING STRAIGHT [in the Manage] an artificial motion of a horſe: of theſe there are ſeveral ſorts, but I ſhall here only ſpeak of two of them, from which all turnings are derived.

1. Is when a horſe keeps his hinder parts inward, and cloſe to the poſt or center, and ſo coming about makes his circumference with his fore-parts, oppoſing his enemy face to face: in order to which you muſt, to the ring of the hind-part of the caveſſon, fix a long rein of two fathoms or more, and to the two other reins two ſhorter reins; then having ſaddled the horſe, and put on his bitt, bring him to the poſt: put the reins of his bitt over the fore-part of the ſaddle, bolſters, and all, and fix them at a conſtant ſtraightneſs on the top of the pommel, ſo as the horſe may have the feeling of the bitt and curb.

If you would have him turn to the right hand, take the ſhort rein on the left ſide of the caveſſon, and bringing it under the fore-bolſter of the ſaddle up to the pommel, fix it at ſuch a direction, that the horſe may rather look from than to the poſt on the right ſide: this being done, ſome ſkilful groom, or attendant, ſhould hold the right ſide rein of the caveſſon, at the poſt governing the fore-part of his body, to come about at large.

After that, taking the long rein in your hand, and keeping his hinder parts inwards with your rod on his outſide ſhoulder, and ſometimes on his outſide thigh, make him move about the poſt, keeping the hinder parts as a center, and making his fore-parts move in a circumference.

Thus you may exerciſe him for ſome time on one hand, till he attains to ſome perfection, and then changing the rein of the caveſſon, make him do the like to the other hand; ply him in this manner ſeveral mornings, and cheriſh him in his exerciſe according to his deſert, till you have brought him to ſuch readineſs, that he will, upon the removing of the rod, couch his hinder parts in towards the poſt, and lapping the outward fore-leg over the inward, trot about the poſt moſt ſwiftly, diſtinctly, and in as ſtraight a compaſs as you can deſire, or is convenient for the motion of the horſe.

From trotting he may be brought to flying and wheeling about ſo ſwiftly, that both the fore-legs riſing and moving together, the hinder parts may follow in one and the ſame inſtant.

When you have made him thus perfect in your hand, mount his back, appointing ſome ſkilful groom to govern the long rein, and another the ſhort: by the motion of your hand upon the bitt, and ſoft rein of the caveſſon, keep the horſe's head from the poſt: and by means of the calf of the leg laid on his ſide, and your rod turned towards his outward thigh, to keep his hinder-parts to the poſt; labour and exerciſe him till he be brought to the perfection deſired.

Then take away the long rein, and only exerciſe him with the help of the ſhort rein of the caveſſon, and no other; afterwards take both reins of the caveſſon into your hands, and exerciſe him from the poſt, making him as ready in any place where you would ride him, as at the poſt.

2. The other ſtraight-flying-turn, is to keep the horſe's face fixed on the poſt as on his enemy, and to move about only with his hinder-parts, for which you are to take the ſame help of the long rein, and the ſhort rein of the caveſſon, and to govern them as before ſhewed; only you are to give the ſhort rein to the poſt-ward as much liberty as before, but to keep his head cloſer to the poſt, and following his hinder parts with the long rein, by means of your rod, make him bring his hinder-parts round about the poſt; and obſerve, that as he did before lap one fore-foot over another, ſo now he muſt lap the hinder-legs one over another.

Continue to exercise him till he be perfect, as before, then mount and labour him in like manner.

Lastly, leaving the post, and all other helps, ply him only in such open and free places, as you shall see convenient.

TURNING-OFF. Much mischief, and even litigation, has arisen lately from errors in this particular. Be it remembered, that tall or large horses cannot subsist upon a short bite, for the plainest reasons; nor is poor winter grass sufficiently substantial for them. In these circumstances, it is necessary that such horses be well filled twice a day from the crib.

Hay. Salt strewed upon the mow, when making, about a quarter of a pound to three hundred weight of hay, will correct the damp, prevent mould, and render the hay more nutritious and relishing.

In anointing the hides of cattle, cover the hand with a bladder.

TUSHES; are the fore teeth of a horse, seated beyond the corner teeth, upon the bars, where they shoot forth on each side of the jaws, two above, and two below, about the age of three, and three and a half, and sometimes four: and no milk or foal teeth ever come forth in the place where they grow. *See* TEETH.

TWIST; the inside, or flat part of a man's thigh; upon which a true horseman rests upon horseback.

TWISTED. A horse reduced to the same state of impotency with a gelding, by the violent wringing or twisting of his testicles twice about, which dries them up, and deprives them of nourishment.

VARISSE, IN HORSES. An imperfection upon the inside of the ham, a little distant from the curb, but about the same height: there is a bone somewhat high and raised; that part of the ham which is below the said bone sometimes swells by a discharge from the great vein, and is termed *varisse;* this does not make the horse halt, but spoils his sale by growing excessive large. Rest and ease (especially if the part be bathed with spirit of wine) will so bind and restrain it as not to be perceived for the time.

VARVELS. Small silver rings about a hawk's legs, having the owner's name engraven on them.

To VAULT A SHOE, is to forge it hollow, for horses that have high and round soles, to the end that the shoe, thus hollow, may not bear upon the sole that is then higher than the hoof.

But, after all, this sort of shoe spoils the feet; for the sole being tenderer than the shoe, assumes the form of the shoe, and becomes every day rounder.

VAUNTLAY, (with Hunters). A setting of hounds or beagles in a readiness, where the chase is to pass, and casting them off before the rest of the kennel come in.

VENOMOUS BITES. Much hath been said on this subject, and great stress hath been laid on particular medicines; but, to what Dr. MEAD hath proposed, no valuable addition hath been made. The Doctor's method of treating the bite of a mad dog is as follows:

Bleed immediately, and that freely; then give three quarters of an ounce of the following powder, every night and morning, for ten days; at the end of which, plunge the horse into cold water, every morning for a month, or longer.

Take ash-coloured ground-liverwort, two parts; black pepper, one part; powder and mix them well together.

It should be observed, that the first signs of madness in most animals, is a trembling: but, as to a dog, his being mad is thus known. In the first stage of the distemper he hath great hunger and thirst, his eyes become more and more fierce and flaming, he hangs down his ears, thrusts out his tongue, froths at his mouth, barks at his shadow, runs along with seeming sadness and anxiety, often breathes as if tired with running, draws his tail between his legs, runs against all that is in his way, biting whatever he meets with, and seems to be in haste, but his course is uncertain.

Every healthy dog is so sagacious as to discern when another is mad, whether they see him, or hear his barking, and carefully shun him.

A salivation, by means of the turbith mineral, hath been said to have the best effect, even when the symptoms of the hydrophobia are become very considerable. The turbith may be thus given to dogs:

On the first night give twelve grains of turbith; it probably may pass off by vomiting, purging, or both; the next night, give twenty-four grains; and, on the third, forty-eight; and so on, until it salivates. A copious salivation is what is depended on, therefore give more or less of the turbith as it may be necessary thereto.

To a horse, the turbith must be given in larger quantities; such as from twenty to forty grains, and repeated as required, observing the directions given for its use, and in salivations, under the article FARCY.

VENERY. The art or exercise of hunting wild beasts, which are called beasts of venery; as also beasts of forest; and they are the hart, hare, hind, boar, and wolf.

VERDERER. An officer of a forest, *&c.* whose principal concern is to look after the vert, or green hue, and to see that it be maintained: he is further described to be a judicial officer of the king's forest, chosen by the king's writ in the full county-court of the shire where the forest is, and sworn before the sheriff to maintain and keep the assizes and laws of the forest, and also to review, receive, and inroll all the attachments and presentments of all manner of trespasses of the forest relating to vert and venison.

The office of a verderer much resembles that of a coroner, especially in this respect; that, as a coroner, upon notice of a person slain, is to go and view the dead body, and to make inquiry, by the oath of twelve men, how, and by what means the person came by his death, and who, and what, was the occasion thereof; so it is the duty of the verderer, by his office, to look after and view the wild beasts of the forest; for if any of them be found slain, wounded, or hurt, upon notice being given to the verderer, he is to go and view the same, and to cause an inquisition to be made by a jury of twelve men out of four of the next towns, to

know how, and by whom, the ſaid beaſt was killed, wounded, or hurt.

Alſo if an oak, being an overt-vert within the foreſt, be felled or cut down out of the king's demeſne woods, the ſame is to be appraiſed by view of the verderer.

The office of the verderer at the court of attachments, is to ſit there to ſee the attachments of the foreſt, as well of vert as veniſon, and receive the ſame of the foreſters, and others that preſent them there, and then to enter them into their own rolls.

VERT, in general, is every plant growing within a foreſt, bearing a green leaf, which may hide or cover a deer under it; but then this word plant muſt be underſtood to mean ſuch plants as are either trees, woods, buſhes, or ſuch like, which are of the nature either of wood or underwood, and not of thoſe kinds of plants which are of the nature of herbs, as thiſtles, and ſuch like, which may alſo be comprehended within the word plant, but not in this ſenſe.

And when after making the *charta de foreſta*, ſome queſtioned, what was to be accounted vert, King EDWARD I. to make the certainty known to all men, made a law to this purpoſe:

"Know ye, (ſaith he) that all trees that ſhall be growing within the foreſt, as well thoſe that bear no fruit at all, as thoſe that do bear fruit at any time in the whole year; and an old aſh being in the arable land within the foreſt, theſe ſhall be accounted vert, becauſe the king is in poſſeſſion of them."

And it is obſerved, that by vert all trees muſt be underſtood, as well under-woods as great woods; and overt-vert is all manner of high trees, as nether-vert is all ſorts of under-wood; and bruſh-wood is called cabliſh.

Some diſtinguiſh vert after this manner, viz. *vert*, is derived of *veriditate*, in *Latin*, and ſignifies any thing that beareth a green leaf, but eſpecially of great and thick coverts.

Alſo it is of divers kinds; ſome of which bear fruit, that may ſerve for food both for man and beaſt; as ſervice-trees, nut-trees, crab-trees, *&c.* and for the ſhelter and defence of the ſame.

Overt-vert, by ſome called *haut-bois*, from the *French*, which ſignifies high trees, ſerving for food and browſe, of and for the game, and for the defence of them, as oaks, beeches, *&c.* Some haut-bois for ſhelter, browſe, and defence only, as aſhes, poplars, *&c.*

Nether-vert, called alſo *ſub-bois*, or under-wood, are for browſe and food of the game, and for ſhelter and defence, as maple, *&c.* Some for browſe and defence, as birch, ſallow, willow, *&c.* Some for ſhelter and defence, as elder, alder, *&c.*

Of buſhes, and other vegetables, are ſome for food and ſhelter, as the hawthorn, blackthorn, *&c.* Some for hiding and ſhelter, as brakes, gorth or gorz heath, *&c.*

VESSIGNON. A wind-gall, or ſoft-ſwelling on the in and outſide of a horſe's hoof; that is, both on the right and the left of it.

VESSION. An infirmity in horſes, which is a ſort of wind-gall, or ſwelling, about the bigneſs of half an apple, bigger or leſſer, compoſed of a ſoft and ſpongy filth, growing between the fleſh and the ſkin, in the hollow next the hock, and beneath the big ſinew, a little above the capelet and bending of the ham.

This ſwelling appears but very little, except when the horſe reſts equally upon both the hind legs, becauſe when he bends his hams, it is not viſible at all; neither does it often make a horſe halt; it riſes on both ſides the ham, and ſometimes only upon one: thoſe that come lower are not dangerous, and in young horſes may be diſperſed by moderate exerciſe.

VETERINARY TREATMENT. Mr. LAWRENCE in his excellent Treatiſe on Horſes, gives the following inſtructions.

"Amongſt the improvements of theſe latter times, the extenſion of a regularly cultivated ſyſtem of veterinary practice, and the attempts to reſcue the ſuperior claſſes of domeſtic animals from the torturing hand of preſumptuous ignorance, are not the leaſt conſiderable, either in the view of humanity or uſe: it is true, that during the various ages which have paſſed ſince the days of COLUMELLA, the number of writers treating on the veterinary ſcience, according to the beſt medical light which their times afforded, has been conſiderable; but their works had never any very extenſive circulation, competent practitioners were wanted to put their precepts in force, and diſeaſed animals were either totally neglected, or confided to the unmeaning and capricious efforts of the illiterate vulgar: entirely to wipe away this opprobrium of humanity and common ſenſe, would infinitely redound to the credit of the preſent times; and it is conſoling to be able to announce, that attempts are daily making towards that beneficent end, by conſiderate and philanthropic characters, in various parts of our own, and a neighbouring country.

"The endeavour to promote veterinary practice amongſt enlightened men, muſt neceſſarily be a firſt object in a treatiſe profeſſing the principles of humanity: it is our buſineſs then to inquire, what cauſes have hitherto operated, or now ſubſiſt, to prevent or retard its progreſs; to demonſtrate how little they conſiſt with right reaſon, and to propoſe ſuch practicable meaſures, as may effect, by eaſy and gradual ſteps, the deſired reformation.

"Ancient preſcription and a falſe pride amongſt the faculty, compoſe the two-fold cauſe which has hitherto generally deprived our domeſtic animals of the benefits and comforts of regular medical and ſurgical aſſiſtance. Cattle have always been doctored in every country, either by their attendants, or by men pretty nearly upon a level with thoſe in point of education, who on the ſtrength of having learned to perform the moſt ſimple and common operations, and from the want of abler proficients, have undertaken the arduous taſk of preſcribing medicine. We will not wonder, that in former times, ſuch profeſſors were held duly qualified, ſince men impartially committed their own perſons to the hands of ignorant barber-ſurgeons, and ſince ſo many other abſurdities of equal magnitude ſubſiſted, which like ſpectres and ghoſts have vaniſhed at the approach of modern light; but it may well be thought

thought ſurpriſing, in this diſcerning age, when a liberal education is univerſally acknowledged to be abſolutely neceſſary to the acquiſition of medical ſcience, that an illiterate farrier ſhould be entruſted in the cure of diſeaſes. Preciſely the ſame ſtudies, phyſiological, anatomical, and medical, are requiſite for the veterinarian, as the human practitioner. The animal œconomy in its manifold relations is generally and fundamentally the ſame, in men and beaſts, and governed by the ſame laws of nature and natural mechanics; the ſame *materia medica* is univerſally applicable to both, but the greateſt ſkill is requiſite to form a judgment on the diſeaſes of brutes, from their inability to deſcribe their feelings, and the conſequent uncertainty of their pathology. Can there be a greater burleſque, than the ſuppoſition of a man's ability to preſcribe phyſic for a horſe, merely becauſe he knows how to groom or ſhoe him? or might we not alſo, with equal reaſon, employ our own ſhoemakers to take meaſure of our health? The plea of experience is futile, from the utter inability, *primâ facie*, of illiterate and uninformed men to inveſtigate the principles of ſcience, and their total want of opportunity to acquire, even by rote, a rational ſyſtem of practice. The whole ſtock of medical knowledge of theſe practitioners, uſually conſiſts in a certain number of receipts derived from their maſters or fathers, and with which they continually ring the changes in all caſes, right or wrong, hit or miſs; and ſo fiercely are they bigotted to their particular noſtrums, that they are totally incapable of all advice or improvement; the common and unavoidable fate of confirmed ignorance, ſince it is the higheſt point of knowledge, to know that we ſtill need information. They ſometimes cure by luck, ſeldom by wit, but often kill by regularly adapted proceſs. How often has the miſerable patient's ſhoulder been pegged, and blown, and bored, by way of puniſhment, for the folly of getting himſelf ſtrained in the back ſinews of the leg, or coffin-joint! How many pleuritic horſes have been killed outright, by ardent and ſpicy drenches, which might probably have cured the cholic, had they been afflicted with it! How many have been rendered incurably lame, from the patten ſhoe being affixed to the wrong foot: the doctor not being aware of the difference between conſtriction and relaxation! Let not the reader ſuppoſe theſe to be mere flouriſhes, applied to the generality of farriers within my knowledge, I aver them, on the experience of many years, to be literal truths; and by the tenor of them, he may judge of the majority of that faculty throughout *Europe*. Into ſuch hands do we commit diſtempered animals, which have it not in their power to reproach us with their accumulated ſufferings; mankind from prejudice, indolence, and want of feeling, neglecting thoſe creatures which they can purchaſe with their money.

" Dr. HACKET, in his late travels through *Dacia* and *Sarmatia*, relates the following wonderful feat of a farrier at *Roman*, in *Moldavia*. ' It was a hot day, and we having travelled far, one of our beſt horſes fell, and we gave him up for loſt. The farrier, who in *Moldavia* is always a gipſey, comforted us by undertaking to ſet the horſe upon his legs, and recover him perfectly in a quarter of an hour, which engagement he really performed. He did nothing but ſcoop out from each upper eye-lid of the beaſt, a gland the ſize of a hazle-nut, without bleeding him, or uſing any other means whatever, which might occaſion a doubt as to the efficacy of the operation.' Who can be ſo ſceptical as to doubt of the cloſe affinity between cauſe and effect in this cure.

" But the pride of medical gentlemen will not ſuffer them to incur the fancied degradation of becoming horſe and cow doctors; thence the major part of the public is neceſſitated to commit the care of their beaſts to unlearned and empyrical hands; nevertheleſs, were there a cordial and general encouragement, I am convinced there would be no want of able veterinary practitioners. What poſſible ſhame can or ought to be annexed to the practice of veterinary medicine, ſince it is an act of humanity, of important public ſervice, ſince it has engaged the attention and the labours of ſome of the moſt eminent men of both ancient and modern times, and ſince the uncontroulable nature of things has placed the juſt adminiſtration of it out of the power of all but the enlightened? It muſt then be pronounced an honourable office, and altogether fit and becoming the gentleman.

" It hath been related, that veterinary writers have not been wanting; which has been more particularly the caſe during the preſent century, and ſubſequent to the great modern improvements in medicine. Various able practitioners have alſo occaſionally ariſen among us, and in a neighbouring country; but the number of ſuch has been ſo ſmall, that the benefits derived from their efforts have been of courſe confined to a very narrow ſphere. It was many years ago diſcovered in *France*, that the beſt remedy for this defect, and the only adequate method for the general propagation of veterinary knowledge, and the rearing of a ſufficient number of perſons properly qualified in that line, would be to erect public ſeminaries expreſsly dedicated to the purpoſe. We of this country came (ſomewhat late indeed) into the ſame ſalutary meaſure; and a Veterinary College, or Hoſpital for Cattle, has been eſtabliſhed at *London*, another near *Birmingham*, and I believe one or two more are under conſideration, in different parts of the kingdom. The propriety of theſe ſteps, and the benefits derived therefrom, are matter of proof, in the obvious extenſion of veterinary knowledge, and the increaſe of practitioners within theſe few years. Public inſtitutions, provided they are not unduly favoured with excluſive privileges, or armed with coercive and reſtrictive powers, are ever moſt efficacious and contributory to the advancement of ſcience; a prominent inſtance of the truth of which we are at this moment witneſſing, in the late eſtabliſhment of a board of agriculture, which in its infancy has already conferred benefits of the moſt important nature on the country, and in a much larger proportion than could poſſibly have been experienced from mere private exertions, or thoſe of ſocieties, however favourably conſtituted, during a great length of time. To make uſe of a homely proverb, that which is every body's buſineſs

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is usually held to be no man's business, and therefore demands the fostering hand of the community: the scattered rays of knowledge are by joint and public means best collected into a common focus or centre, whence they are with more ease and expedition diffused and circulated throughout the whole body of the commonwealth.

"For the satisfaction of such of my readers at a distance from the metropolis, who may yet be uninformed, and out of respect to a public institution, the principle of which has my most cordial approbation, I shall give a short account of the veterinary college, first established in the year 1792, at St. *Pancras*, *London*. The public are indebted for this truly national foundation, to the discernment and patriotic principles of the Agricultural Society of *Odiham* in *Hampshire*, and for the first very celebrated professor, the late CHARLES VIAL DE SAINT BEL, to the judicious recommendation of the Earls GROSVENOR and MORTON, the former of which noble lords, is the greatest breeder of horses, I believe, which has ever been in *Britain*. SAINT BEL had previously signalized himself in this country, as a veterinary anatomist, by his memorable dissection of the famous racehorse Eclipse.

"The veterinary college is supported by annual, or perpetual subscription. The annual subscription is two guineas, but the prompt payment of twenty guineas, constitutes a subscriber for life; and in one instance, the institution has shared the bounty of parliament.

"I cannot so well describe the views and objects of this institution, as from the short statement printed by the authority of the governors, of which the following is an abstract:

'The grand object is the improvement of veterinary knowledge, in order to remedy the ignorance and incompetency of farriers, so long and universally complained of; for this end a large piece of ground has been provided, and a range of stables, a forge, a theatre for dissections and lectures, with other buildings, have been erected; a medical gentleman, of superior abilities, has been appointed professor, with other requisite officers, at an expence, large in the aggregate, but at salaries not individually greater than were consonant to the strictest rules of economy.

'The anatomical structure of quadrupeds, horses, cattle, sheep, dogs, &c. the diseases to which they are subject, and the remedies proper to be applied, are investigated and regularly taught; by which means, enlightened practitioners of liberal education, whose whole study has been devoted to the veterinary art, in all its branches, may be gradually dispersed over the kingdom, on whose skill and experience confidence may be securely placed.

'Pupils to the college, in addition to the lectures and instructions of the professor, and the practice of the stables, at present enjoy (from the liberality of some of the most eminent of the faculty) the advantage of free admission to their medical and anatomical lectures. These pupils, previous to leaving the college, are strictly examined by a medical committee, from whom they receive a proper certificate, and several, examined and approved, have already left the college, and are at this time practising in various parts of the country with great success.

'Subscribers have the privilege of sending their diseased animals to the college, without farther expence than that of their daily food, and these in general form a sufficient number of patients for the practice of the professor and pupils. On fixed days, the professor prescribes for animals belonging to subscribers, who find it inconvenient to spare them from home, provided the necessary medicines be furnished and compounded at the college: subscribers horses are also there shod at the ordinary prices.

'His royal highness the commander in chief, having been pleased to appoint a board of general officers, to take into consideration the objects of this institution, they have reported the continual loss of cavalry to have been very heavy, from the total ignorance of those who have hitherto had the veterinary department in the army; this report his majesty has approved, and henceforward, to qualify for the military service, a farrier must be provided with a regular certificate from the veterinary college. To this I may add, from a late advertisement in the newspapers, that a number of gentlemen, subscribers to the institution, attend once a fortnight at St. *Pancras*, for the purpose of inspecting the discipline of the stables.'

"It would be intirely superfluous in me, to make use of any arguments in favour of an establishment, the necessity and public advantages of which, are so strikingly obvious; I shall only observe, how fully sensible I feel of the liberality and patriotism of those gentlemen who have stood forth as patrons and subscribers, and how much I regret, that there should yet be so many persons of property, having the highest interest in the services of horses, and yet grudging or neglecting to bestow a small pittance towards the promotion of veterinary improvements, whilst they are often so ready to lavish immense sums in trifling or stupid gratifications.

"Were I thoroughly qualified to judge of the practice of the veterinary college, it would not be in my power to describe it, having no connection there, or means of information on that subject; but the public may be well satisfied thereupon, from the consideration that the professor must be a regular medical man, that his daily experience must be great, besides the manifest advantage of a recourse to the established mode of practice, and various courses of lectures of that very able veterinarian, the first professor. From late inquiries, however, I have learned, that the college practice has in general been very successful, and much to the satisfaction of the subscribers, some few instances of failure excepted, in which the prejudice of the reporters (who seemed to demand infallibility in a college) formed the most conspicuous feature of the report. Of their form of shoes, and method of shoeing, I can speak from my own observation; to the best of my knowledge, they are highly judicious, and I hear of no complaints from the owners of the horses. OSMER's shoe is at length adopted at the college; the natural consequence of a trifling variation from that of SAINT BEL.

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"The veterinary college has lately adopted a very judicious method of diſſeminating the true principles of ſhoeing, by erecting forges in different quarters of the metropolis, where all perſons may at any time have their horſes ſhod, at the common price charged to ſubſcribers. Prejudice, I know, on more important ſubjects, has often been trumpeted forth, as not only harmleſs, but beneficial amongſt men; which indeed would be juſt, were there any general utility in the continuance of ancient abuſes. It is the grand buſineſs of philoſophy to provide a counterblaſt for theſe intereſted or ignorant trumpeters. It has already been aſked of the advocates for our ſhoeing and ſow-gelding doctors, how they came to ſuppoſe, that leſs medical knowledge would ſuffice to preſcribe for the brute, than for the human animal, which can orally depict his feelings, and verbally aſſiſt the phyſician in forming a correct judgment of his diſeaſe. They ſeem to act upon the ſtrange ſuppoſition, that it is much eaſier for an illiterate man to penetrate at once, as it were by intuition, into the arcana of the ſciences, than for a learned, or well informed, to render himſelf ſkilful in the nature and management of horſes. Can a man be the worſe farrier for having learned the neceſſity of making conſtant obſervations of his own, inſtead of acting by rote, and being guided by a few arbitrary receipts; for knowing the nature of the medicines he preſcribes, the anatomy and animal functions of the horſe; and for the making all ſuch knowledge his peculiar ſtudy? Now that witches, and ghoſts of all kinds are flitting apace off the ſcene, it is full time for men to lay aſide the expectation of all other uncauſed effects.

"It ought never to be forgotten, that all improvements in the treatment of beaſts have been made by gentlemen and men of ſcience; and to the leſſons of ſuch, received at firſt with averſion, and inculcated by ſlow degrees, the preſent race of grooms and farriers owe their ſuperiority over their predeceſſors. Preciſely the ſame remark is applicable to farmers, and if we except Ellis of *Gaddeſden*, who was a man of genius and of an inquiſitive mind, it would be difficult to find one who has ever been emulous of diſengaging himſelf from the trammels of cuſtom. Yet far be from me the arrogance of paſſing ſentence of condemnation upon the whole body of farriers, in the aggregate, or of aſſerting their total inutility. There muſt neceſſarily exiſt, in ſuch a numerous body, men of talents, and of very extenſive practice; but would not theſe men be rendered ſtill more capable in their profeſſion by the aids of education? The force of authority and preſcription is generally an over-match for the reaſoning faculty. Your horſe is ſick—you apply in courſe to a regular farrier—it is a common caſe, the doctor hits it, and ſucceeds; or nature, reſt, and the untaxed bill of coſts, do the buſineſs. If a complicated and dangerous caſe, I ſay it is ſimply impoſſible, even for a man of genius, upon the ſtrength of his own ſingle experience, and without the benefit of regular medical knowledge (which is the experience of ages) to judge otherwiſe than at random. Well, our empirical methodic now commences with ſome one favourite noſtrum, which failing, he proceeds through his whole *circular routine*—and ſhould the animal poſſeſs ſtamina ſufficiently ſtrong to enable him to ſurvive the rude ſhock of this double diſeaſe, of nature and medicine, he muſt needs make a brave nag all his life after, for ſure a trifle cannot hurt him. Should he chance to die (which ſometimes may happen) it is plainly his own fault, not the farrier's, who has doubtleſs done his beſt for the patient. As to the owner, no one can blame him, ſince, like a good ſubject, he has been guided by the cuſtom of his anceſtors, reſpecting "the wiſdom of paſt ages"—nothing remains but for him to pay his bill, and to ſend for the farrier again whenever he may want him. But it is quite another thing, ſhould a horſe fail at the college, or in the hands of a veterinary ſurgeon; the owner ſhakes his head, with a kind of ſerious look of ſelf-approbation, which almoſt makes him amends for the loſs of his horſe; the tale goes round the circle of his friends—"Ah! no, no, it will never do."—It is preciſely thus at preſent.

"On this topic I am induced to dwell the more particularly, from a motive of juſtice, on account of the irrational prejudice of too many perſons concerned in horſes, againſt the veterinary college.

"Enjoying a public inſtitution in the metropolis, where veterinary ſcience in all its branches is regularly taught and practiſed; it remains for thoſe who intereſt themſelves in the ſafety and well-being of our domeſtic animals, to deviſe and recommend the moſt proper and expeditious methods of a general diffuſion of the benefit throughout the country. Farriers in *London* ought to be adviſed by perſons of influence, to allow their ſons and apprentices the advantage of attending the college lectures, which are given, and which is indeed already practiſed by ſeveral of good repute. Thoſe gentlemen of the medical profeſſion, attending the *London* hoſpitals, whoſe deſtination is for country practice, will ſurely perceive great probable advantage in the acquiſition of veterinary knowledge, even if they have no preſent intention to profeſs that branch of medicine. Buſineſs, as is ſometimes the caſe with young practitioners, may run ſhort at the outſet, and the leiſure time might be both honourably and profitably employed in veterinary practice. Such meritorious and humane occupation could not poſſibly injure the medical character of a gentleman in theſe enlightened times; on the contrary, it would be more probable to procure him connections of the moſt valuable ſort; and might be his paſſport and introduction to the families of ſportſmen. Let me not be here cenſured as too aſſuming, ſince I have frequently heard ſurgeons expreſs themſelves at a loſs what method to take, in order to qualify themſelves for veterinary practice, and even deliberate on the propriety of having recourſe to farriers for that end; others, I have known, commencing their veterinary career with ſcarcely having ever turned over a ſingle page of the veterinary claſſics or even knowing their names; and when, in ſome difficult caſe, which ſurpaſſed their ſlender experience, they have been adviſed to refer to proper authority, they have, in my hearing, expreſſed their wonder, "that men, who lived ſo long ago, ſhould know ſo much." That theſe authors have been too generally

nerally neglected of late, and their deserts ungratefully forgotten.

"The inquirer will not only find the analogy between brute and human bodies sufficiently close; the variations of material consequence few, and easily distinguishable, and, indeed, already distinguished to his hand, but also the powers and specific effects of medicine upon brute bodies (horses are chiefly to be understood) very accurately ascertained.

"Purgative medicines lie an unusual length of time in the body of a horse, from the great length and considerable volume of his intestines: BRACKEN found the alimentary canal from the œsophagus, or gullet, to the fundament, to be thirty-five yards in a horse of middling size. Salivation is said, by the last mentioned author, and by ST. BEL, not to succeed with the horse, for which they assign their reasons.

"On the head of anatomy, the practitioner need not want ample instructions. Our SNAPE, as has been observed, made a fair chart of the body of the horse, from the designs of the *Italian* RUINI, upon whom he improved. RUINI was cotemporary with that grand constellation of anatomists, from VESALIUS and FALLOPIUS, to WILLIAM HARVEY, who in the sixteenth and seventeenth centuries, revived that wonderful and useful science, and brought it nearly to the same state of perfection in which it is at present found. It was at this period, the immortal HARVEY discovered the circulation of the blood; unless the honour of the discovery be more justly attributable, as the *Italians* assert, to their countryman FRA. PAOLO; however that be, we know that HARVEY was a most sedulous and laborious experimenter, and that the tender-hearted and humane CHARLES, his feelings stifled by custom, a far more mighty tyrant than himself, furnished the operator with deer, in different stages of pregnancy, to be cut open alive, for the purposes of comparative anatomy.

"GIBSON copied SNAPE's anatomical plates, making certain improvements, which will appear on collation; our latter horse-anatomists have generally taken for their guides the two former. Several persons, during the present reign, have published the anatomy of the horse, amongst whom STUBBS, the justly celebrated horse painter, and BLAINE, a gentleman of the *French* school, are the most eminent: the plates of the latter are beautifully and skilfully coloured.

"There are many cases in which it might be advantageous to all parties, for a farrier to act under the directions of a medical gentleman; farther, a medical man, either of town or country, desirous, but unable from various causes to pay a strict personal attention to veterinary practice, might, with advantage, retain a farrier of experience for that purpose. I have often thought that a horse surgeon, situated within ten or twelve miles of *London*, where good pastures and convenient straw-yards were to be had, and whither, greased, worn-down, and foul draft horses, might be sent at a moderate expence, for cure and recovery, would render great and much required services to the metropolis.

"A practitioner settled in the country, and ambitious of extending the knowledge of hippiatric physiology, besides the theoretic aids above described, need not be at a loss for subjects for dissection; his habits of life also, will necessarily bring him practically acquainted with the horse, in which, to say the truth, some of our veterinarians are very defective; and herein it is, that Mr. TAPLIN, who is an experienced horseman, and a first rate judge of the statistics of the stable, has an indubitable advantage over most of his brethren. There is, perhaps, no branch of veterinary practice of so material import, as that which relates to indispositions in the feet, tendons, and ligaments of horses, and, in that respect, mere theory, or even mere surgical practice, will always be, to a certain degree, defective. To have thorough skill in this matter, to judge correctly of the seat of defects, and to detect incipient lameness in horses, requires, I had almost said a fellow feeling, with an experimental knowledge of the motions and habitudes of those animals: it is, in truth, necessary, that a considerable spice of the jockey be blended with the veterinarian.

"To those proprietors, whose inclinations lead them to doctor their own horses, my advice is, that they previously lay in a stock of good sound theory, from the original authors whom I have already particularized; and that they consult, as often as possible, and always in difficult cases, with the medical men of their acquaintance: in truth, they may at least assure themselves, that they are not incurring a greater risk, than trusting their cattle in the hands of common farriers, which, in nine cases out of ten, is but to rival the practice of the ancient *Babylonians*, who, having no medical men, exposed their sick on the highways, to the mercy, good fortune, or the skill, of the first itinerant prescriber. In case of the incorrigible stupidity, or bigotted obstinacy of a blacksmith (which last is by no means uncommon); it may well answer the purpose of a gentleman who keeps a considerable number of horses, and has, on other accounts, much iron work to do upon his premises, to set up a forge. The first expence is trifling, and one regular smith, assisted by a common labourer, would be sufficient. This plan is successfully practised by several gentlemen.

"Many sportsmen, liberally disregarding the extraordinary expence, purchase all their drugs at apothecaries hall, that they may be at a certainty respecting the quality; yet surely, there are druggists of reputation in *London*, on whom ample dependence might be placed. It must immediately and forcibly strike every man's apprehension, how much depends, both upon the genuineness and good preservation of the medicines made use of; and of the little effect, and probable danger of the most judicious prescriptions, where the ingredients are defective, or not to be depended upon. There are various medical articles in which impositions are commonly practised, and for which, insignificant or hurtful succedanea are in use: of these, I hope I shall not forget to caution the reader as they occur.

"The advantages of ready-made medicines are obvious enough, in regard to immediate convenience, and the saving of trouble; it were to be wished there were less to counterbalance these; but, it must be acknowledged,

ledged, the temptation of putting off bad and unmarketable drugs in these compositions is great, the hazard of their being stale, considerable; and the uncertainty not a little, in point of accuracy, where it may be reasonably supposed such large masses are compounded. Instances enough are not wanting, where the distribution of the cathartic bases has been so irregular, that one ball has acted as a mere alterant, and another has nearly purged a horse to death. Nor would I encourage any man to expect succotrine aloes, or *Turkey* rhubarb, in these ready-made medicines. I hope the reader will not so far mistake me, as to suppose these remarks levelled at any particular vender, least of all at Mr. TAPLIN; of whose skill as a surgeon, or of the goodness of whose prepared medicines, I have never heard the smallest complaint.

"As to quack-medicines, never-failing nostrums, drinks, and cordials, that always succeed where every thing else fails, and specifics for incurable diseases—

"Doubtless the pleasure is as great,
"In being cheated as to cheat,"

else how are we to account for the never-failing cullibility of man? Does it never occur to the purchasers of these articles, that a regular medical man must surely have as extensive an acquaintance with the family of drugs, chemical or galenical, and that he is, at least, as likely to make a fortunate conjunction between them, as the conjurer who advertises his nostrum? Do they consider the blunders they themselves are likely to make in the application? But the quack does his business by the average, or rather by wholesale; he fires at a flock, and the buyer, or his horse, may chance to be of the number. The philosophy of quack medicines lies upon the surface; any man may understand it, and any man may make them; the only difficulty is to get money to advertise them. As to the pharmaceutical part of the business, chuse your disease, then fix upon the most powerful acknowledged specific, clap in an auxiliary or two, *ad libitum*, disguise them adroitly, and be sure make the composition elegant, *prob. est*. The devil is in it, if specifics wont hit sometimes, and remember, there is no charge for attendance.

"Notwithstanding all which has been repeatedly said upon the subject, and by men much better qualified for the task than myself, it is still necessary to continue giving cautions against the general fondness for medical receipts. Many of these formulæ (particularly those of ancient date) are composed with so little proof of medical knowledge, or rationality, that they appear to be the mere result of knavery or caprice; but granting them ever so well adapted to the curative intention, they must be of extreme uncertain use at best, in inexperienced hands, on account of the professional skill required to form a true judgment of the disease, and the anomalies in the animal system.

"In a little book, published under the auspices of that duke of *Devonshire* who was the proprietor of flying Childers, there are certain cautions applicable to our present purpose, which appear so rational and necessary, that I shall copy them in the author's own words, with very little alteration or addition. I must premise, that this author complains much of the badness of the drug purchased by the country apothecaries in his days, which he asserts were the worthless refuse of the *London* shops; and that he had a horse killed by a farrier's drench; the doctor, it seems, had prepared and boiled another of the same kind, but finding his patient dead, he took home the specific for the next occasion.

"First. Chemical preparations should be had from the most eminent dealers in *London*, which, if kept well stopped in white flint glasses, will preserve their goodness many years.

"Woods and gums. Woods should ever be purchased in the piece: in chips they will not last good above a year; in powder only a few months. Preserve these in boxes of tin or oak, in a dry place.

"Seeds ought to be fresh every year. Roots and herbs, if native, it is highly convenient to cultivate at home. Herbs must be dried annually, roots preserved as woods and gums.

"Beer, prescribed in horse medicine, ought to be clear; if not, prepare by setting it upon the fire and dispuming it, or taking off the scum as it rises.

"Wine prescribed, must not be sharp, or pricked, or adulterated; if pure, but only pricked, boil it awhile. The admixture of cyder, honey, and spirits, is a bad substitute, and quite contrary to the intention of a cordial or restorative; the home-made wines of this country are much in the same predicament. Good sound beer is always to be preferred."

VICES IN HORSES. In order for the prevention, correcting, or curing them, you may use the following directions:

If a horse carries his head or neck awry, strike him twice or thrice with the contrary spur; but if he be very stiff-necked on the right side, and plying or bending on the left, hold the right rein shorter than the other, and when he inclines that way give him sudden checks, having a sharp wire fastened in the reins, that striking in his neck, he may be compelled to hold it straight, taking care to check him upwards, lest he should get a habit of ducking down his head.

If a horse is apt to shake his head and ears upon the least occasion, or move his ears, when he begins to kick, or bite, or cast you, strike him on the head with your wand, and at the same time give him a check with your bridle, and a stroke with the contrary spur, putting him suddenly out of his pace; then make him stop, that he may have leisure to understand your meaning; and do the like when he starts, or when he winches, which is a sign of his designing to bite or strike with his heels.

If a horse ducks down his head, check him suddenly with the bridle, and strike with the spurs, that he may be sensible of his fault: if he be standing, make him bring his head into its right place, as he stands; and when he obeys, be sure to cherish him, and he will soon understand the meaning.

If a horse is skittish and apt to start, so that you are never free from danger, while you are on his back; in case

case it proceeds from a weak sight, whereby objects may be represented to him, otherwise than they really are, give him time to view them well, and then ride him up gently to them; but if he be naturally fearful, and ready to start at the hearing strange sounds, you must inure him to the noise of guns, drums, trumpets, &c. and in time he will take delight therein.

If a horse is restive, and refuses to go forwards, pull him backwards, and perhaps he will then go forwards; and though he rebel a long time, the whip and spurs will prevail with him at last, if they be given smartly, soundly, and in time: when once you begin, you must continue them till he submits, provided it proceeds from stubbornness, and not from faintness and sickness.

If a horse rears an end, that is, raises so high before as to endanger his coming over upon the rider, you must give him the bridle, and leaning forwards with your whole weight, giving him both your spurs as he is falling down, but forbear to spur him as he is rising, for that may cause him to come over upon you.

If he is subject to fall down upon the ground, or in the water, nothing is better than a pair of good spurs applied when you first perceive he is going about to do so, which will divert him from thinking any more of it; but if he desists, do not correct him again at that instant, for bad horsemen occasion most of these vices, by correcting unduly, or out of time; by doing which they are so far from making a horse sensible of his fault, that they fright him, and put him into confusion, and cause him at last to become restive.

If a horse is apt to runaway, you must be gentle both with a slack curb and keeping an easy bridle-hand; first walk him without stopping, but only staying him by the head by little and little; then trot him a while, and put him again from a trot to a walk, staying him by degrees, and always cherish as soon as he obeys; and when you find him thus far peaceable, put him off from his trot to a gentle gallop; from that to a trot; and from a trot to a walk, staying him by degrees with a steady hand: by using this method for some time with judgment and patience, it is very likely you may cure him of running away.

If a horse is apt to fly out violently, it is certain, that the more you pull the bridle rein, and hurt him by straightening the curb, the more he will tug, and run the faster: in this case, therefore, if you have field room enough, whenever you find him begin to run, let him go, by slackening the bridle, and giving him the spur continually and sharply till he begin to slacken of his own accord.

By treating him in this manner, it is not to be doubted but you will cure him at last, there being no remedy like this for a runaway horse.

Some horses will not endure the spurs when they are given them, nor go forwards, but as it were cleaving and fastening to them, strike out and go back; if you press them hard they will fall to staling, and not stir out of the place.

If he be a gelding, it is difficult to break him of his humour; but a stone-horse perhaps may forget it for a time under the conduct of a good horseman: yet if he once get the mastery of his riders, he will be very apt to begin a-new again.

To conclude, every gelding, stone-horse or mare, that does not fly with the spurs, but obstinately cleaves to and kicks against them, should be looked upon as of a cross and dogged nature, and is therefore to be absolutely rejected.

VIGOUR OF A HORSE. In order to judge of this quality, the following rules and remarks are of good use:

When a horse is standing still, keeping him fast with the bridle-hand apply your spurs to the hair of his sides, which by horsemen is termed pinching; and if you find him impatient under you, gathering himself up, and endeavouring to go forwards, champing upon the bitt without thrusting out his nose, it is a sign of heart and vigour.

There are some horses that shew a great deal of mettle when pinched, but immediately lose the apprehension of it; so that though they have a very sensible feeling, which proceeds from the thinness of their skin, yet they are of a dull disposition: of such horses it may be said, that they are rather ticklish than sensible of the spur.

There is a great difference between a mettled horse and a fiery one; the former deserves to be highly valued, but the latter is good for nothing. A horse that is truly vigorous should be calm and cool, move on patiently, and discover his mettle but when required.

Then the surest method is to chuse such horses as are very apprehensive of strokes, and are afraid at the least appearance of them; which, at the only closing of the legs and thighs, seem to be seized with fear, and alarmed, and that without fretting or fierceness.

A horse that walks deliberately and securely, without requiring the whip too often, and without fretting goes from the walk to the gallop, and from the gallop to the step again, without being disquieted; but continually champing upon his bitt, he trots with glibness upon his shoulders easily, snorting a little through his nostrils:

If a horse is well upon his haunches, has a light and easy step, his head firm and well placed, and the feeling of the bitt equal and just; I say, if he has all these qualities, you will seldom have cause to complain upon account of his price.

I shall only add here, by way of advice, that whatever good qualities a horse may have, that you never give a high price for him, unless he be endued with these two, of having a good mouth, and being sensible of an obedience to the spur.

VIVARY. A place either on land or water where living creatures are kept; but in a law sense it is taken for a park, warren, or fish-pond.

VIVES, AVIVES, FIVES. } Though this distemper goes by three names, yet it is but one and the same distemper, and are certain flat kernels, much like bunches of grapes, growing in a cluster, close knitted together in the part affected.

They center from the ears, and creep downwards between

tween the chap and the neck of the horse towards the throat, and when inflamed they swell, and not only are painful to the horse, but prove mortal by stopping his wind, unless a speedy course be taken for the cure.

They cause such difficulty of breathing, and uneasiness, that he will oftentimes lie down and start up again, and tumble about after a strange manner.

This distemper is occasioned by drinking cold water, after a violent heat; which causing the humours to melt down they fall too plentifully upon the natural glands or kernels: also by eating too much barley, oats, rye, rankness of blood, *&c.*

The cure. 1. If the vives are not grown so large as that the horse is in immediate danger of being stifled, do not open the tumours, but rather endeavour to rot them by taking hold of the kernel with a pair of pincers or plyers, and beating the swellings gently with the handle of a shoeing hammer, or bruising them with your hand, till they become soft enough; and they will afterwards disappear; but this is not to be done till the swellings are pretty ripe, which may be known by the easy separation of the hair from the skin if you pluck it with your fingers.

Having rotted (or in case of necessity) opened the vives, let the horse be let blood under the tongue, and afterwards in the flanks; wash his mouth with salt and vinegar; and blow some of the vinegar into his ears, rubbing and squeezing them hard to make it penetrate; for this will considerably assuage the pain which it communicates to the jaws.

Then give the horse to drink a quart of wine with two handfuls of hemp-seed pounded, two nutmegs grated, and the yolks of half a dozen eggs, and wash him gently after for an hour.

About an hour after giving him that draught inject the following clyster: boil an ounce and half of sal polychrestum, finely powdered in five pints of beer; when you have taken it off the fire, put it into two ounces of oil of bays, and squirt all in blood warm.

As to our practice in *England*, in the cure of this distemper, some cut holes where the kernels are, and pick them out with a wire, then fill the hole with salt, and at three days end it will run; and afterwards wash it with sage juice, and heal it with an ointment made of honey, butter, and tar, or with green ointment, and also use other means with it; but the efficacious receipts are these following:

Take tar, tried hog's-grease, bay-salt and frankincense powdered, of each as much as will suffice; melt them together, and with a clout fastened to a stick, scrub the place four or five mornings, until the inflamed part become soft and ripe; then slit the skin with your incision-knife, let forth the corruption, and heal it with tried hog's grease, and verdigrease, made up into fine powder: melt them upon a fire, and let not the stuff boil more than a walm or two; then put in some ordinary turpentine, and so stir all together till it be cold, and then carefully anoint the sorrance till it is healed.

Another excellent way is, to take a pennyworth of pepper beaten into fine powder, a spoonful of swine's grease, mix them very well together, and convey the stuff equally into both the ears of the horse, so tie or stitch them up, then shake them that the medicine may sink downwards, and this being done, let him blood in the neck-vein and temple-vein.

But the most common way of cure, and such as our farriers use, is to let him blood on both sides the neck-veins, then to scar the swelling with a small hot iron, from the root down to the bottom of the ear, till the skin looks yellow; the same iron being in shape somewhat like an arrow's head, with three or four small lines drawn from the body of it; and after searing, in order to take out the heat of the fire, and to make it sound again, anoint it with fresh butter, or with hog's-grease, and he will do well.

Mr. LAWRENCE recommends the same application to be made in this disease, as he proposes for the strangles. *See* STRANGLES.

VIXEN or FIXEN. A fox's cub.

ULCER. An ulcer is distinguished from a wound by its dry, hard edges, by its disposition to heal, and by the sharp, thin humour that is discharged from its surface. It is a too common practice to dress wounds with sharp, spirituous dressings, instead of lint and the common digestive ointment; and thus wounds that would readily heal, are converted into troublesome and tedious ulcers.

Generally, a bad habit of body is the cause of ulcers, as well as of their continuance, in which case no cure can be performed before the constitution is mended. But if it is not owing to the fault of the humours, you must endeavour to change it into a wound, by softening the edges, and promoting the digestion of the acrid matter into pus: this last is done by dressing it with the mercurial digestive, or by rubbing the surface gently with the milder blue ointment, each time of dressing, and then applying a pledget of the digestive ointment; the edges are generally softened by the same means with which digestion is promoted; but if that proves insufficient, touch them at each dressing with the lunar caustic.

If great pain and inflammation attend ulcers, foment them with a decoction made from wormwood, chamomile-flowers, bay-leaves, *&c.* and if there is a tendency to a mortification, add a pint of rectified spirit of wine to each gallon of the fomentation: twice a day may be a general rule for fomenting and dressing ulcers, where there is much discharge, but once a-day is enough where that is small.

Sometimes ulcers are occasioned by a foul bone which lies immediately underneath them; and which never can be healed until the faulty part of the bone is removed: this is known to be the case when the flesh appears soft and like a quagmire, and when there is a discharge of stinking, greasy water, and, by passing a probe through the flesh, for then you perceive that the bone is rough, which in a healthy state is smooth. In this case, much patience is sometimes required: sometimes the case is trifling, and in three weeks the faulty part separates; at other times a year will hardly suffice for this end; however, if the ulcer is very spongy, a caustic may be applied upon it as large as the faulty scale; and when the bone is quite bare,

dress it with dry lint every day; and if there is much discharge, let it be dressed twice a-day; the dry lint will generally suffice. If the carious bone be very foul and stink, the lint that lays next the bone may be dipped in tincture of myrrh; if the ulcer is deep, lint may lay next the bone, and fine tow, made into soft dossils, may do to fill up the hollow space, and prevent the flesh from filling up before the piece of bone is separated, which must not be hurried by any forcible method, but left entirely to this gentle one, by which, if the constitution is good, the end will be obtained; and, if it is bad, it must, by proper medicines and diet, be recruited.

Ulcers may happen on any part of the body: sometimes they are seated on the eye, and their chief distinctions are, that they are more superficial, or more deep; more mild, or more untoward and difficult to cure. For the more superficial and mild sort, the following may be used every three or four hours:

Take pure water, four ounces; sugar-candy, half a drachm; sugar of lead, ten grains; mixed.

If with this the ulcer begins to dry, but becomes hot and painful, it may have more water added to the same quantity of ingredients.

For the deeper, fouler, and more obstinate kind, the following may be used three or four times a-day:

Take four ounces of water; sugar-candy, half a drachm; white vitriol, two scruples; camphor, ten grains; mixed.

If with this the ulcer is moist, or becomes foul, make it a little stronger by adding more of the ingredients.

Ulcers in the eyes, that are attended with great pain, are relieved by fomenting them with warm milk, tinged with saffron (and in which a little gum arabic is dissolved), two or three times a-day.

If a foul blackish water distils from the ulcer, dress it twice a day with the following:

Take four ounces of pure water, add to it fifteen grains of verdigris, ten grains of camphor, twenty grains of myrrh, and half a drachm of sugar-candy.

A fistulous ulcer frequently happens on the withers from pinching there with the saddle, and neglecting, or improperly treating them: if the bruise is discovered at the first, rub it well two or three times a-day with the following lotion:

Take white vitriol, two drachms; sugar of lead, twenty grains; water, four ounces; mixed.

Care should be had to distinguish these swellings that happen from the saddle bruising this part, from those that follow, and are the effect of a fever, &c. this latter sort should not be treated with any thing but suppuratives; a warm poultice of scalded bran should be laid on, and renewed two or three times a-day, until the abscess is ripe and bursts; for if an opening is made before the matter is completely digested, whether the cause of the abscess was from a bruise, or from some other disease settling there, it will equally endanger the part becoming a spongy foul ulcer, which accident, if it befall you, will require a pretty large opening, taking care not to injure the ligament of the neck, which terminates near the withers: if the sungus and the discharge from it be disagreeable and troublesome, dress it twice a-day with pledgets dipped in the following:

Take of blue vitriol, half an ounce; dissolve it in a pint of water; add to it oil of turpentine and rectified spirit of wine, of each four ounces; sharp vinegar, six ounces; oil of vitriol, two ounces; mixed.

Fistulous ulcers should be laid open to the very bottom, or they will never heal firmly.

It may be necessary to observe, that we may often in vain pursue the best methods of cure by external applications, unless we have recourse to proper internal remedies; for, as all ulcers, difficult to heal, proceed from a particular indisposition of the blood and juices, before the former can be brought into any order, the latter must be corrected by alteratives and sweetening medicines; therefore I advise the following method of cure:

The first intention in the cure of ulcers is bringing them to digest, or discharge a thick matter; which will, in general, be effected by the green ointment, or that with precipitate; but should the sore not digest kindly by these means, but discharge a gleety thin matter, and look pale, you must then have recourse to warmer dressings, such as balsam, or oil of turpentine, melted down with your common digestive, and the strong-beer poultice over them; it is proper also in these kinds of sores, where the circulation is languid, and the natural heat abated, to warm the part, and quicken the motion of the blood, by fomenting it well at the time of dressing; which method will thicken the matter, and rouse the native heat of the part, and then the former dressings may be re-applied. If the lips of the ulcer grow hard or callous, it will be necessary to foment strongly with a decoction of chamomile and mallows, as hot as can be conveniently applied; then scarify superficially the whole part, both longitudinally and transversely, with a fleam or abscess lancet, so as to entirely penetrate the callous substance upon the surface; after which it must be dressed with digestive ointment twice every day; the fomentations and scarifications to be repeated occasionally, if necessary, till the callosity is quite sloughed off, and comes away with the dressings. A proper ointment for the above purpose, may be prepared as follows: Take of yellow basilicon, two ounces; and black basilicon, one ounce; and melt them together over the fire. When taken off, stir in one ounce of turpentine; and, when cool, add half an ounce of red precipitate, finely powdered; the whole to be minutely incorporated upon a stone or marble slab. As soon as the callosity is removed, and the discharge comes to its proper consistence, dress in general with a small portion of lint, thinly covered with either of the basilicons, placed under a pledget of tow spread with the following digestive: Yellow wax and black rosin, each four ounces; Burgundy pitch, two ounces; melt these in a pint of oil over a slow fire; and, when taken off, stir in two ounces of turpentine. For large wounds, where a plentiful discharge is required, stir into this quantity

quantity about three ounces of the spirits of turpentine, that it may incorporate in getting cool.

Should the wound incarnate too fast, and fill with fungous flesh, slightly touch such parts with a piece of unslacked lime, regulating the mode and application by the necessity, and repeating it as occasion may require. When the cicatrix is nearly formed, the cure may be completed by hardening the surface with a little tincture of myrrh.

All sinuses, or cavities, if no tendinous parts intervene, should be instantly laid open, with a bistory, to their utmost extent, and properly filled with a pledget of lint well impregnated with warm digestive, and plentifully covered with tow spread with the same. After a second or third dressing, should the inside of such cavity prove callous, or hard in substance, it must be taken away by the knife, or destroyed by the means before described. If it be so situated that the parts forbid an entire separation, sound with the probe, and at its extremity make a counter incision through the integuments to meet the probe, till, by passing through, it removes any lodgement that may have been left for the matter to corrode, which it will very soon do, so as in many cases to affect the bone itself. Where the cavity penetrates deep into the muscles, and a counter-opening is impracticable or hazardous; where, by continuance, the integuments of the muscles are constantly dripping and melting down; in these cases washes may be injected, and will frequently be attended with success. The following is particularly recommended by Mr. TAPLIN:

Take honey and vinegar, each two ounces; liquefy over the fire; and when cool add tincture of myrrh and tincture of cantharides, each one ounce: mix.—When the ulcer is by these means divested of its virulence and bad smell, the callosity sloughed off or extracted, and a favourable appearance of incarnation comes on, the dressings may be changed from the precipitate digestive before described to pledgets spread with LOCATELLUS's balsam, or the following compound: Take white diachylon, two ounces; LOCATELLUS's balsam, one ounce; and melt them over the fire in two ounces of olive oil. Take off; and, when nearly cool, stir in an ounce of balsam of capivi, a little at a time, till it is all incorporated.

These sinuses, or cavities, frequently degenerate into fistulæ, that is, grow pipey, having the inside thickened, and lined, as it were, with horny callous substance.

In order to their cure, they must be laid open, and the hard substance all cut away; where this is impracticable, scarify them well, and trust to the precipitate medicine made strong, rubbing now and then with caustic, butter of antimony, or equal parts of quicksilver and aquafortis.

When a rotten or foul bone is an attendant on an ulcer, the flesh is generally loose and flabby; the discharge oily, thin, and stinking; and the bone discovered to be carious, by its feeling rough to the probe passed through the flesh for that purpose.

In order to a cure, the bone must be laid bare, that the rotten part of it may be removed; for which purpose, destroy the loose flesh, and dress with dry lint; or the dossils may be pressed out of tincture of myrrh or euphorbium. The throwing off the scale is generally a work of nature, which is effected in more or less time, and in proportion to the depth the bone is affected; though burning the foul bone is thought by some to hasten is separation.

Where the cure does not properly succeed, mercurial physic should be given, and repeated at proper intervals; and, to correct and mend the blood and juices, the antimonial and alterative powders, with a decoction of guaiacum and lime-water, are proper for that purpose.

ULCERS, OR FISTULAS IN HAWKS. Sometimes hawks have ulcers and fistulas in several parts of their bodies, which will always run and send forth a filthy, fretting, thin and saltish humour at their nares.

For their cure: syringe it often to the bottom with strong alum water, and if you can conveniently put a tent wetted in vinegar and alum in the holes, that will hasten the cure; but do not let the tent reach to the bottom of the sore.

UMBER. A fish which some will have to be the same as the grayling, and only different in name: it is of the tench kind, but seldom grows so big: very few, or any, exceeding the length of eighteen inches. He frequents such rivers as trouts do, is taken with the same baits, especially the fly, and being a simple fish is bolder than the trout: he hides himself in winter; but after *April*, appearing abroad, is gamesome and pleasant, yet very tender mouthed, and therefore quickly lost after he is struck. *See* GRAYLING.

UMBLES, HUMBLES OR NUMBLES, part of the entrails of a deer.

UNCERTAIN. We call a horse uncertain that is naturally restless and turbulent, and is not confirmed in the manage he is put to, so that he works with trouble and uncertainty.

UNDOING OF A BOAR [with Hunters], signifies the dressing of it.

UNITE. A horse is said to unite, or walk in union, when in galloping the hind-quarters follow and keep time with the fore.

VOLARY. A great bird-cage, so large, that birds have room to fly up and down in it.

VOLT. This word signifies a round, or a circular tread, and, in general, where we say in the Academies to make volts, to manage upon volts, we understand a gait of two treads, made by a horse going sideways round a center, in such a manner, that these two treads make parallel tracts, one larger made by the fore-feet, the croup approaching towards the center, and the shoulders bearing outwards. Sometimes the volt is of one tread; as when a horse makes volts in corvets, and in caprioles, so that the haunches follow the shoulders, and move forwards on the same tread. In general, the way and tract of a volt is made sometimes round, sometimes oval, and sometimes square, of four straight lines; so that these treads, whether round or square, inclose a terrain, or manage ground, the middle of which is sometimes distinguished by a pillar, or else by an imaginary center, which is there supposed

ſuppoſed in order to regulate the diſtances and the juſtneſs of the volt.

RENVERSED VOLT. A tract of two treads, made by the horſe, with his head to the centre, and his croup out ſo that he goes ſide-ways upon a walk, trot, or gallop, and traces out a ſmall circumference with his ſhoulders, and a large one with his croup.

This different ſituation of the ſhoulders and the croup, with reſpect to the center, gives this volt the name of renverſed, as being oppoſite in ſituation to the former.

Renverſed volts upon a walk, appeaſe and quiet unruly horſes if they are made methodically.

The ſix volts are made *terra-a-terra*, two to the right, two to the left, two to the right again; all with one breadth, obſerving the ground with the ſame cadence working (tride) ſhort and quick, and ready, the forehand in the air, the breech upon the ground, the head and tail firm and ſteady.

To do the ſix volts, you ſhould have an excellent horſe that is knowing and obedient, and has ſtrength to anſwer them.

To make a horſe work upon the four corners of the volt, is to manage him with that juſtneſs, that from quarter to quarter, or at each of the corners or angles of the volt, he makes a narrow volt that does not take above the quarter of the great volt, the head and tail firm, and thus purſues all the quarters, with the ſame cadence, without loſing one time or motion, and with one reprize or with one breath.

In ſpeaking of volts, we ſay, to put a horſe upon volts, to make him work upon the volts, to make good volts, to embrace the whole volt; that is, to manage ſo that the horſe working upon volts, takes in all the ground, and the ſhoulders go before the haunches.

To paſſage upon volt, or ride a horſe head and haunches in, is to ride him upon two treads, upon a walk or a trot.

DEMI-VOLT. A demi-round of one tread or two, made by the horſe at one of the corners or angles of the volt, or elſe at the end of the line of the paſſade; ſo that being near the end of the line, or elſe one of the corners of the volt, he changes hands, to return by a ſemi-circle, to regain the ſame line.

When he does not return upon this line, we ſay he has not cloſed his demi-volt.

Demi-volts of the length of a horſe, are ſemi-circles of two treads, which a horſe traces in working ſideways, the haunches low, and the head high, turning very narrow; ſo that having formed round, he changes the hand to make another, which is again followed by another change of hand, and another demi-volt, which croſſes the firſt. This demi-volt of a horſe's length is a very pretty manage, but very difficult; we may compare it to a figure of eight.

VOMITING. Horſes are often extremely ſick, but never vomit, either naturally or by art: the reaſon is, a peculiar contraction of the gullet, and its ſpiral direction, before it enters into the ſtomach.

However, though the more immediate effects of this evacuation are not to be obtained, art hath its ſubſtitutes, by which the remoter advantages thereof are happily effected, *viz.* ſuch as excite coughing, ſneezing, and ſtraining to vomit.

Aſſa-fœtida, ſavin, horſe-radiſh, green juniper wood, and other ſtimulating and ungrateful things, either ſingly or mixed in any proportion, wrapped in a thin rag, and faſtened to the bit of the bridle, excite a nauſea and coughing.

If a drachm of the powdered leaves of aſſa-tabacca is blown up the noſtrils once or twice a-day, it will very effectually provoke a ſneezing.

URINE. A ſerous or wateriſh excrement derived from the blood, which paſſes from the reins, and is diſcharged through the bladder.

Sometimes a horſe is ſeized with an exceſſive flux of crude and undigeſted urine, reſembling water, by which his ſtrength is drained by degrees: it proceeds from heat and ſharpneſs of the blood, or an inflammation in the kidnies, which, like a cupping glaſs, ſuck in the concocted ſerum from the veins.

The remote cauſes, are the immoderate and irregular working of young horſes, cold rains in the beginning of winter, eating of oats brought over by ſea, which, being ſpongy, draw in the ſpirits of the ſalt water.

As for the cure, the horſe is to be fed with bran inſtead of oats; giving him a cooling clyſter, next day let him blood, the day following inject another clyſter, the next day after that bleed him again, not taking away above the quantity of two pounds of blood at a time; this done, boil two quarts of water, and put it into a pailful of common water, with a large handful of oriental bole beat to powder: mix all well together, and let the horſe take it lukewarm for his ordinary drink morning and evening, giving him full liberty to quench his thirſt, which, in this diſeaſe, is exceſſive; for the more he drinks, he will be the ſooner cured.

As for remedies to provoke urine in horſes, which are often neceſſary,

Take about four ounces of dried pigeon's dung in powder, and boil it in a quart of white-wine; after two or three walms ſtrain out the liquor, give it the horſe blood-warm, then walk him for half an hour, and he will ſtale if it be poſſible.

Another good remedy for a horſe that cannot ſtale, is to lead him into a ſheep-cote, and there unbridle him, ſuffering him to ſmell the dung, and roll and wallow in it; for he will infallibly ſtale before he comes forth, if he be not paſt cure.

This quick effect proceeds from a ſubtile and diuretic ſalt, that ſtreams out from the ſheeps dung, and ſtrikes the brain; ſince by reaſon of the correſpondence of that with the lower parts, it obliges the expulſive faculty to void the urine.

The urinary paſſages are frequently ſtopt by thick phlegm, which will ſcarce give way to the above-mentioned medicines, and therefore recourſe may be had to the following receipt:

Take an ounce of ſaſſafras-wood with the bark, cut it ſmall, and infuſe it in a quart of white wine, in a large glaſs bottle well ſtopped, ſo as two-thirds of the bottle may remain empty: let it ſtand on hot aſhes for about

about fix hours, then ſtrain out the wine, and give it the horſe in a horn.

This remedy will certainly afford relief, either by urine or ſweat, the matter of which is known to be the ſame.

To cauſe a horſe to ſtale for his benefit in ſome cholics, put two ounces of ſugar of dialthæa to a quarter of a pound of Caſtile-ſoap, beat them well together, make pretty big balls, and diſſolve one of them in a pint and a half of ſtrong beer ſcalding hot; when it is lukewarm give it him in a horn, and let him faſt an hour after.

For a Stoppage of Urine, when a horſe cannot ſtale.

Pound half a pound of anniſeeds, and a handful of parſley-roots; or if you have not them, half an ounce of parſley-ſeeds, pound them, and boil them in a quart of ſtrong white-wine, or for want of that, as much old ſtrong beer; then ſtrain it off, and add a drachm of oyſter-ſhells finely powdered, give it the horſe milk-warm.

Mr. Lawrence, in treating of the diſorders in the kidneys of horſes, ſays, ſtrains in the kidneys proceed from violent exertion and overloading. The ſymptoms, difficulty of ſtaling, and frequent attempts; thick, foul, or bloody urine; faintneſs, loſs of ſtomach, and deadneſs of the eyes; inability to back. Theſe injuries being neglected, it is ſaid the horſe will in time become ſurfeited from the imperfect ſecretion of urine, the kidneys being diſeaſed; and that the affair may end in glanders and conſumption. Bleed according to the degree of fever, and the condition of the horſe. A rowel in the belly. Diuretic clyſters. Gum arabic in the water, and half an ounce of ſweet ſpirit of nitre in it, once a day, for a few days. Gentle walking exerciſe, led. The following ball, twice a day: Lucatellus-balſam, one ounce; ſpermaceti, ſix drachms; ſal prunel, half an ounce; mix with ſyrup of marſhmallows, or honey, and anniſeed powder. Should that not ſucceed, make trial of balſam of Capivi, or Straſburgh-turpentine, one ounce; Venice or Caſtile-ſoap, one ounce; nitre, ſix drachms; myrrh powdered, two drachms; ball as before, and waſh it down with a horn or two of marſhmallow decoction ſweetened, or warm gruel. Decoctions of juniper berries, marſhmallows, parſley, and liquorice roots, in which gum is diſſolved, and ſweetened with honey; doſe a pint or two, with a gill of fine old Holland-Geneva; in caſe of much fever the ſpirit to be omitted. The quantity, freedom, and colour of the urine, will determine the ſtate of body, or the horſe's amendment. Sometimes a cure is very tedious and protracted, but it is infinitely ſafer to attend patiently nature's good time, and the operation of mild medicines, than to attempt any haſty and forcible meaſures. The horſe being ſtrong may have gentle phyſic after the cure, otherwiſe ſhould be ſent to graſs. Chronic, or neglected caſes of this kind, are abſolutely incurable in the ſtable; the ſame may be ſaid of ſtrains in the loins, which, if very bad, will require at leaſt a twelve-month's run, to be thoroughly recovered.

For bloody urine, from falls or bruiſes, from over ſtraining at a hard leap, or a hard ran heat in racing, or any other cauſe; bleed, and give two quarts of milk, or whey, warm, with a gill of peppermint-water, and a ſtrong decoction of two ounces of juniper berries; Iriſh-ſlate, two drachms; ſweeten with honey, or ſyrup of quinces. If the drink be deſired more efficacious, repeat and continue it once a day, with the addition of one ounce to two of Armenian bole in powder; and two drachms, to half an ounce, Japan-earth. Or. The following reſtringent ball twice a day; Peruvian-bark, half an ounce to one ounce. Lucatellus-balſam, or balſam of Peru, half an ounce; Iriſh-ſlate two drachms; elixir vitriol, one drachm; ball with conſerve of red roſes, and ſyrup of poppies. Or. A decoction of logwood and oak bark, ſweetened with honey, doſe one pint.

In a ſuppreſſion of urine from inflammation, paralyſis or numbneſs, or other defect in the kidneys, whence obſtruction, and inability to perform the office of ſecerning the urine from the blood, the body of the horſe will appear diſtended, although his bladder be empty, and he make no motion to ſtale; at leaſt very little water will paſs: in a few days, the legs will be ſwelled, and the tumefaction of the body increaſed to a great degree, with perhaps eruptions and blotches, from the retention of the urinous ſalts in the blood; this caſe demands inſtant relief, and carries with it an apology for vigorous meaſures, ſince the moſt powerful ſtimulants, have to my knowledge proved for a conſiderable time ineffectual. A horſe remaining in this ſtate, the ſecretion of urine being repreſſed two days, may be looked upon as loſt.

If the ſtrength of the horſe will bear it, open ſeveral veins in different parts, drawing to the quantity of from one to two quarts of blood. Immediately give a clyſter, and follow it up with a ball, the ball to be repeated three times in the day, if needed; and the clyſter at diſcretion; ſhould there be a partial and gradual amendment, they may be repeated in a milder form, or ſubſtitutes choſen from amongſt thoſe forms before preſcribed.

The clyſter. Succotrine aloes from one to two ounces, in exceeding fine powder; jalap, two drachms to half an ounce. Nitre well beaten, two to four ounces. Juniper and bay-berries bruiſed, one handful each; Venice-turpentine, two ounces; beat up with the yolks of two eggs. Infuſe in one to two quarts of marſhmallow decoction, or thin gruel, adding one pint linſeed oil. The ball. Juniper-berries pounded, one ounce; ſuccotrine aloes, and ſal prunel, ſix drachms each; ethereal oil of turpentine, from two to four drachms; camphor one drachm; ball with liquorice powder, oil of amber, or preferably with chemical oil of juniper, and honey: make it into two or three balls, for one doſe. Or: in a deſperate caſe, cantharides from one ſcruple to half a drachm; camphor diſſolved in oil of almonds, one drachm to two; nitre and Venice-ſoap each an ounce; mix with ſyrup of marſhmallows. Warm gum arabic water, and ſcalded pollard, if the horſe have any appetite. Lead out well clothed, and walk gently half an hour, the weather

weather permitting. When the kidneys are found, mercurial physic will sometimes succeed. After the cure, strengthen the kidneys with bark and steel, if there remain symptoms of debility. If an external application should be thought necessary, lay the following cataplasm, spread on a double coarse flannel, upon the loins of the horse, and bind it on with a warm covering, previously rubbing well into the parts two portions of oil of turpentine, and one of oil of amber. Garlic pounded, and horse-radish, *q. s.* Mustard-seed, one pint; camphor, two ounces; as much green soap as will make a plaister of due consistence: it may be renewed every two days.

The ischury (for which the strangury, although in common use, is an improper term) often afflicts aged horses, or such as are hard worked, and hardly used. It is an obstruction at the neck of the bladder, preventing the course of the urine, or suffering it to pass only in drops; and arises either from an inordinate distension, and consequent loss of elasticity and force, in the detrusores urinæ, with a paralysis of the sphincter muscle, from the horse being driven on, and forced to retain his water too long, and other causes of debility: or a collection of matter derived from diseased kidneys, or the determination of catarrh or fever. The symptoms are obvious, distended flanks, straddling, with frequent ineffectual motions to stale; but the horse will sometimes lie down on his back, and roll, as in a cholic.

In the cure of this malady, it is a general rule, to which there is no exception, that all drastic diuretics (at least in any considerable doses) should be religiously avoided: since they do but excite a more copious secretion of urine from the kidneys, and of course increase the distention of the bladder, its inflammation, or the numbness and debility of its muscles. In a case of desperate necessity, no measure could be so effectual, or so safe, as an evacuation of the urine by the proper surgical operation, which by emptying the bladder, would give opportunity for the recovery of its tone; otherwise, bleeding, tender care, and the milder diuretics, with opiates continued. To establish a cure, two months grass, or straw-yard.

The diabetes in a horse, is either the fatal termination of some chronic disease, or the sign of a constitution too far gone to be worth the attempt at a recovery; but if such an attempt be meditated, it must be essayed by the long-continued use of restringents, agglutinants and balsamics, barks, gums, balsams, boles, chalk, logwood, and limewater. Dry nourishing diet, with beans and rice.

URIVES. Nets to catch hawks with.

WALK, is the slowest, and least raised of a horse's goings. The Duke of *Newcastle* made this motion to be two legs diametrically opposite in the air, and two upon the ground, at the same time in the form of a St. *Andrew's* cross, which, in effect, is the motion of a trot.

But latter authors agree, that so great a master was mistaken in this point: for in a walk (as any one may observe) a horse lifts two legs of a side, one after the other, beginning with the hind leg first: as if he lead with the legs of the right side, then the first foot he lifteth is his far hind foot; and in the time he is setting it down (which in a step is always short of the tread of his fore foot upon the same side) he lifteth his far fore foot, and setteth it down before his near fore foot.

Again, just as he is setting down his far fore foot, he lifts up his near hind foot, and sets it down again, just short of his near fore foot, and just as he is setting it down, he lifts his near fore foot, and sets it down before his far fore foot.

And this is the true motion of a horse's legs upon a walk.

Begin this lesson in a walk, and end it with a walk.

When you teach your horse to turn to the right and left, or from one end to another, make him walk at first, then teach him upon the trot, and then upon the gallop.

WALKERS. A sort of forest officers appointed by the king to walk about a certain space of ground appointed to their care.

WAR-HORSE. In order to the chusing such a horse, take the following directions:

Chuse one tall in stature, with a comely head, and an out-swelling forehead; a large sparkling eye, the white of which is covered with the eye-brows; a small thin ear, short and pricking; if long, well carried, and moving; a deep neck, a large crest, broad breast, bending ribs; broad and straight chine, round and full buttocks; a tail high and broad, neither too thick nor too thin; a full swelling thigh, a broad, flat, and lean leg: short pasterned and short jointed.

As for ordering him during the time of his teaching, he must be kept high, his food good hay and clean oats, or two parts of oats and one part of beans or peas, well dried and hardened; half a peck in a morning, noon, and evening, is enough.

On his resting days let him be dressed between five and six in the morning, and water him between seven and eight in the evening.

Dress him between three and four, and water him about four or five, and always give him provender after watering; litter him at eight, and give him food for all night.

The night before he is ridden, about nine take away his hay, and at four in the morning give him a handful or two of oats; and when he has eaten them turn him upon the snaffle, and rub him all over with dry cloths, then saddle him, and make him fit for his exercise; when he has performed it, bring him into the stable all sweaty as he is, and rub him all over with dry wisps; when this has been done, take off his saddle, and having rubbed him through with dry cloths, and put on his housing cloth, then lay the saddle on again with the girth, and walk him about gently till he is cool; when set him up, let him fast for two or three hours, and put him to his meat: in the afternoon curb, rub and dress him; also water and order him as before.

WARBLE. To chirp, sing, and chatter as a bird does; to sing in a trilling or quavering way.

WARBLES AND SET-FASTS, (in Farriery) the small

ſmall hard tumours frequently formed on the ſaddle part of a horſe's back, and occaſioned by the heat or uneaſy poſition of the ſaddle, are ſtiled warbles; and if theſe are ſuffered to remain till they turn horny, they are then called ſet-faſts.

The former may be eaſily diſperſed by bathing them with a mixture conſiſting of two parts of camphorated ſpirits of wine, and one part of ſpirit of ſal ammoniac. But it will be neceſſary to rub the latter with the mercurial ointment till they are ſoftened, and at laſt diſſolved. Sometimes indeed they will not yield to this treatment, in which caſe they muſt be taken out with the knife, and the parts treated as a freſh wound.

Warbles may alſo ariſe from an internal cauſe; namely from the heat and richneſs of the blood.

WARRANT A HORSE. The bargain for a horſe, is either attended with the warranty of "ſound, free from vice or blemiſh, and quiet to ride or draw," or he is ſold without warrant, to be taken with all faults; in which latter caſe, the buyer can have no right or pretence to return him, except he prove glandered, which exception I ſuppoſe ariſes from the illegality of ſelling any horſe in that ſtate.

Difficulties having ariſen, and various opinions prevailed, as to the preciſe definition of the term ſound, we ſhall point out what has been hitherto the relative practice, and how far it conſiſts with equity. The late Lord Chief Juſtice MANSFIELD laid it down as a rule, that any horſe ſold for more than ten pounds, ought in law to be ſound, of courſe returnable if otherwiſe; a determination inconſiſtent either with truth or equity in the firſt inſtance, which ought to be the ground of all law, and manifeſtly affording the purchaſer an undue advantage. An unſound horſe may be worth a thouſand pounds.

We ſhall define ſoundneſs to imply, "not diſeaſed, lame, blind, or broken-winded; nor having, at the time of ſale, any impending cauſe thereof." By cuſtom, three days trial are allowed the purchaſer, within which period the horſe ought to be returned for unſoundneſs: but if the defect lie hid, and the horſe can be proved to have been unſound at the time of ſale, a much longer detention does not bar the return of the horſe; on the other hand, if the ſeller can prove the ſoundneſs, it is preſumed the horſe has been damaged whilſt in the cuſtody of the purchaſer, who in ſuch caſe muſt ſuſtain the loſs. In caſes of this nature, as well as all others, juſtice muſt depend on the laſt reſort, upon the judgment and integrity of the evidence.

The impending cauſes of unſoundneſs are various; ſuch as, rottenneſs, defects in the eyes, and wind; ſplents, and ſpavins. For example, a rotten horſe may be bought and ſold as a ſound one; his gaunt, hide-bound, and ill-favoured appearance, being attributed to bad uſage, and want of condition; but death in a few days may convince the buyer of his error. A horſe may chance to be ſold in the inſtant that a cloud in the eye is beginning to occaſion partial blindneſs, or juſt before he becomes lame, from an initient ſplent, or ſpavin; in ſuch caſes, the defect muſt have exiſted at the time of ſale, the warranty was falſe, and the bargain is void. In caſe of warranting a one-eyed horſe, it is uſual to ſay, ſound, "barring the eye;" but ſhould ſuch an one be ſold as ſound, without that remark, he would doubtleſs be returnable.

A diſtinction always exiſts in practice, between unſoundneſs and blemiſhes, which in fact accords both with truth and convenience: the latter may exiſt without impediment to the former.

Blemiſhes conſiſt of broken knees, loſs of hair in the cutting places, mallenders and ſallenders, cracked heels, falſe quarters, ſplents, or excreſcences which do not occaſion lameneſs; and windgalls and bog-ſpavins, if they prevail to any great degree; theſe laſt may have been repreſſed, immediately previous to ſale, and may re-appear in a few miles riding. Neither windgalls nor bog-ſpavins impede a ſound warrant, provided the horſe does not go lame; it may be the ſame, probably, in reſpect to a falſe quarter.

The term quiet, or free from vice, implies, according to eſtabliſhed uſage, that the horſe is neither reſtiff, nor a notorious runaway, kicker or biter; and that he will quietly and obediently permit himſelf to be ſaddled, or accoutred, in the uſual way; this laſt, however, ſome dealers have ventured to diſpute.

The trial of a horſe's ſoundneſs ought to be committed to a perſon accuſtomed to horſes. Our judgment, as to the goodneſs of the wind, is now univerſally guided by the ſoundneſs of the cough; but independent of that criterion, the preternatural heaving of the flanks in a broken-winded horſe, will always be ſufficiently apparent, if he be put upon a ſwift pace. It is neceſſary to try the new purchaſe in all paces, and even to ride him fairly a conſiderable number of miles, in order to diſcover any latent defect, or lameneſs of the ſinews, which may have been patched up with bandage and aſtringents, for the expreſs purpoſe of ſale. This method is very common, and frequently practiſed upon ſpeculation. A man ſays to himſelf, the ſoundneſs of this horſe is indeed very doubtful, I will warrant him however, and give him a chance, if he come back I ſhall be but where I was. It is a frequent practice at the repoſitory, for the auctioneer to ſay, "this horſe is ſound, but the owner does not chuſe to warrant him."

It is by no means proper to have a newly purchaſed horſe ſhod or trimmed, previous to a determination to keep him.

On this eſſential branch of the practice of horſe-dealing, few will be inclined to agree with Mr. TAPLIN, who, in his laſt publication, recommends "that no horſe ſhould be deemed ſound, and ſold with ſuch warrant, but a horſe in a ſtate of perfection, entirely free from lameneſs, blemiſh, and defect, not only at the time of transfer, but never known to have been otherwiſe." Had Mr. TAPLIN made a perfect cure of an unſound horſe, he would, no doubt, warrant him ſound, notwithſtanding he had once been otherwiſe.

Having already been made acquainted with the terms, and that the nag is quiet to approach, giving him ſome gentle warning with your voice, you go up to him in his ſtall on the near ſide, and laying your hand on his fore-hand, you proceed from thence to examine his eyes, mouth, and countenance; ſtill holding his head,

head, and turning your own to the right about, you have a view of the curve of his neck, the height of his fore-hand, and the position of his shoulder and fore-arm. Returning to his fore-hand, you descend to his legs and feet, minutely examining with your fingers every part from above, below, within-side, and without. You will not forget the virgin integrity of the knees, so much and so justly in request: so difficult is this to repair, either by nature or art, when once violated, that I am almost tempted to add it as a fifth, to the four irrevocable things.

Being satisfied respecting his fore-train, your eye and hand will glance over his back, girting-place, carcase, and loin; thence proceeding to his hinder quarter, and the setting on of his tail. You will judge how far he agrees in each, and every respect, with the rules of proportion laid down. The hinder legs and feet will demand a share of attention full as minute as the fore ones, and that the inside, or hollow of the hock, be not passed without due notice, since it often happens that the injuries of hard labour are most apparent in those parts. A survey of the other side of the horse concludes the stable examination.

Suffer no person belonging to the stables to be with you in the stall during your inspection, that the horse may not be rendered unquiet, either designedly, or at the mere presence of an habitual tormentor.

To any reader who may suppose too great a stress lain upon a stable examination, we shall assign what is a very forcible reason; the examinant will by no means find so good an opportunity abroad, when the horse, according to commendable custom, shall have been fired, and set upon his mettle, and when his own attention must inevitably be divided. The stall is also a good situation in which to judge of the temper of a horse, his condition, sound or infirm method of standing.

Your intended purchase is now led out in all his glory, and so much care has been probably used, during the ceremony of bridling and combing, to arouse his natural, and supply him with an addition of artificial fire, that "ware-horse" is by no means an unnecessary caution to the by-stander. He is taken to a spot of ground raised for the purpose of shewing his fore-quarters to advantage. Here you have an opportunity of making another general survey, in a good light. It is in this situation you must make a final judgment respecting that most material object, his eyes, taking care to have his head placed favourably for your inspection. The next consideration is, the condition of his legs, that he stand straight, and do not knuckle with his knees, that his joints do not tremble, (the sure indication of weakness) and that his feet are even and a just distance apart. Order him next to be walked forward in hand, placing yourself immediately behind him, that you may see how he divides his legs, whether he be straight in his hams, and go sufficiently wide behind, and close before. Keep your position, and let him trot back, (still in hand) and you will perceive whether he bends his knees, and go free from cutting or knocking, whether his feet be sound, and his joints free from stiffness, or injury from hard labour.

After these preliminaries, you may permit the jockey in waiting to mount, who ought to exhibit a fair specimen of every pace, walk, trot, cantor, and gallop, you having placed yourself in the interim, about midway of his intended course, forward and back again; in which advantageous situation, you may command a view of the horse, his figure and action, in all directions. In this part of the shew, the particulars to be noted chiefly, are how the horse carries his head, the degree of freedom he possesses in his shoulders, whether he goes well above his ground, and safe, whether his haunches follow well, and without over-reaching, and whether he submits to the touch of the spur without sucking in his wind, and swelling, which is a sure indication of a rebellious disposition, and that he obeys with reluctance. As the concluding scene, the nag is brought back to that elevated spot just mentioned, when you take another cursory view of him, and he returns to his stable.

But let no person, however accustomed to horses, purchase one for his own use, without previously riding him a trial himself; a privilege which no dealer of credit refuses to the extent of two or three miles upon the road, in company with himself or servant. It is undoubtedly the way to know all that can be known of an animal, in so short an acquaintance, first to see him ridden, and then to ride him yourself. You will be enabled to determine, how far his merit is to be attributed to the skill or spurs of the jockey, how far his condition and wind are to be depended upon, and whether he has been merely pampered for sale; whether his carriage be adroit, careful, and safe, over rough ways; whether he be naturally shy and skittish, or has taken aversion to particular objects; and whether he trot down hill in a firm and compact way, naturally throwing his weight upon his haunches, and bearing light on the hand, or whether he lean forward, as if desirous of using his nose as a fifth leg. This last is a consideration never to be overlooked. A hack that will not go well down hill, may fairly be pronounced good for nothing, were it only because such good qualification is generally the consequence of being well-shaped, the backward position of the shoulder, and the inclination forward of the haunches, favouring the attitude most proper for descent. Last of all, there may be something highly disagreeable in the motions or carriage of a horse, which a person can by no other means discover, than by actually riding him.

Much obloquy has, in all periods, fallen upon dealers in horses, who have been generally supposed more prone to trick and deception than any other class of tradesmen; but this arises perhaps chiefly from the precarious nature of the commodity in which they deal, and amongst a number of shabby and tricking fellows, (which indeed are to be found in all trades) there are no doubt many fair and honourable men in this. Their method of preparing and decking out their goods for sale, has always been vehemently decried, as directly calculated for the purposes of deception: this is only in part true, as far as the manœuvres are intended to conceal unsoundness; as no reasonable objection can possibly lie against their endeavours to set their horses off

off to the beſt advantage. The grand complaint is on the behalf of humanity, the laws of which, upon thoſe occaſions, are always outraged, wherefore a change of meaſures would be a deſirable event, and this is evidently in the power of the buyers.

We allude principally to the well-known ſtable diſcipline among dealers, of figging and firing. The firſt is, to thruſt a corn (as it is phraſed) of ginger into the fundament of a horſe, or burden of a mare the inſtant of being led out to ſhew, for the purpoſe of irritation, and of elevating the tail, which is thereby uſually cocked up in a monſtrous and ludicrous manner. Firing is the diſcipline of the whip, which is uſed to arouſe every ſpark of mettle in the horſe. This latter is an everlaſting ſource of cruelty, perpetrated by a race of brutal and inſenſible miſcreants, who would be as little ſcrupulous to derive gain from the torture of their own ſpecies. Horſes, whilſt in ſuch hands, live in a conſtant ſtate of apprehenſion and miſery. Almoſt every hour of the day, the tormentor goes into the ſtable, like a Weſt-Indian Negro-driver, whip in hand, and inflicts the cruelty of the lash upon each horſe, in order to make him lively and apt to fly, even at the ſound of a man's foot; and this correction from habit, from a deſire of reaping all its imaginary benefit, and from ſuppoſed cauſes of offence, is often performed with the utmoſt force. But the barbarity is never ſo monſtrous, or rather hellifh, as when inflicted upon the debilitated and crippled objects of exceſſive labour. Too much of this is practiſed at the ſales of worn-out poſt-hacks and machiners. All barbarity is totally unneceſſary, for the intent of it is ſo generally known, that it can deceive nobody; nay, it often has the effect of producing ſudden cramps in a horſe, and always of ſpoiling his trot upon a ſhew. All horſes are ſhewn to the beſt advantage by a moderate uſe of the whip. There is alſo a cruel folly prevalent among cow-jobbers, namely, that of ſtocking the cows, as it is called; they oblige theſe creatures to ſuffer the pains of retention, twenty-four, or perhaps forty-eight hours, previous to ſale, that they may have a great ſhew of milk; as if all buyers of cows were not aware of the cuſtom, and of conſequence deception muſt be out of queſtion. The plea that any knowledge of the animal can be thence obtained, is ridiculous, for there are other rules of judging infinitely more certain, familiar to every experienced man. Many cows get inflamed, and even indurated udders from this practice, from which they never perfectly recover.

To return to figging and firing. The *London* dealers, with ſome few exceptions, permit no ſervant to ſhew a horſe, without having previouſly figged him, under a certain forfeit. They aſſert, they are obliged to purchaſe horſes in the country ſhewn in that manner, and that they can do no leſs, in juſtice to themſelves, than to ſhew them under ſimilar advantages in town; the truth is, the cuſtom is inveterate among them, and they can ſee no beauty or merit in a horſe, unleſs he is transformed into a Merry-Andrew, and jumps about from ſide to ſide as if diſtracted, knocking his hucklebones againſt every wall he goes near. But all this is but a poor recommendation to a man of taſte and judgment in horſes, and the dealer thereby often miſſes his mark. As to the practice, as intended to favour deception, or cover unſoundneſs, the remedy is always in the purchaſer's own hands.

There is a prejudice ſomewhat general, but which holds much the ſame relation with truth that prejudices generally do; namely, that good horſes are not to be found in the hands of dealers; and we frequently ſee it inſerted in an advertiſement, by way of additional recommendation of a horſe, that he does not belong to a dealer, or that he has never been in a dealer's hands. It is yet ſtrange, that a man whoſe living is to deal in them, who has ſo many through his hands, who goes to the fountain-head to have them freſh and young, and whoſe intereſt it is to ſell good horſes, ſhould have none of that kind to ſell; and ſomewhat more ſo, that a private perſon ſhould be deſirous of parting with ſo ſcarce and valuable a commodity. I will agree, that a ſecond-hand good horſe is far preferable to a freſh bad one. But upon the average, young and freſh horſes muſt neceſſarily bear the premium; and if a dealer be careful to furniſh his ſtables with ſuch, no blame ought to attach to him; for were he to journey into the country, with the reſolution to buy none but good horſes, his journeys would be many, and his purchaſes few indeed.

Horſes go through the hands of ſeveral deſcriptions of perſons before they reach the metropolis. The conſiderable breeders ſell their colts to another claſs, whoſe buſineſs it is to keep them until they are fit for market and general uſe. Theſe laſt diſpoſe of their horſes either at their country fairs, or through the medium of particular connections in town.

WARREN. A franchiſe, or place privileged, either by preſcription or grant from the king, to keep beaſts and fowls of warren in.

The word now is generally applied to a quantity of ground ſet aſide for rabbits, &c.

A warren, as well as other things, requires a proper place and particular ſituation; it ſhould be upon a ſmall aſcent, expoſed to the eaſt or ſouth; the ſoil that is moſt ſuitable to it, is that which is ſandy; for to make a warren in a ſtrong clayey ground, would be the way to hinder the rabbits from making themſelves burrows with eaſe; if the warren ſhould be moriſh ground, you would reap but little benefit from them, wet being injurious to theſe animals.

A warren, properly ſpeaking, is a coppice which is cut every ten, twelve, or fifteen years, according as the owner thereof thinks fit; otherwiſe he muſt be content to have it according as the ſituation of the ground will allow.

He ought to take all the due precautions, that his warren be ſo contrived, that the rabbits may eaſily habituate themſelves to it: but how to ſucceed therein, men's ſentiments differ: ancient authors, who have wrote upon this ſubject, ſay, that it muſt be ſurrounded with walls; but others think this extravagancy, and that the expence will by much exceed the profit; and indeed we find not many that are ſo incloſed, but every one is at his own liberty as to that.

Mr. CHOMEL's opinion is, that a warren ought to be

be encompassed by a good ditch; and though such an inclosure cannot hinder the rabbits from going out, at least if it be not filled with water, yet it may be hoped no damage may accrue therefrom, when once they are accustomed to the place, to which they will keep, though there be neither walls nor ditches to hem them in. He that makes a warren, is at liberty to make it as large as he pleases, the extent is not to be limited; only this may be observed, that the more spacious it is, the more it will be to the owner's profit.

I do not know, says the same author, how those who have wrote before me upon the subject of warrens, have given their opinion, that it ought to be surrounded with ditches full of water; they must either be acquainted with the nature of rabbits, or they must not: if they were, why, since they know moisture to be injurious to these animals, should they advise a thing that most contributes to it, by bringing water about by the means of ditches? Is not this acting against the course of nature? and if they were not sensible of the matter, they could have no reason to prescribe what must naturally tend to the detriment of a warren; and therefore without troubling themselves about what will become of the rabbits that are put into a warren, let them make one in such a situation as is before described, and surrounded with good dry ditches, and it will be sufficient.

If you have but few rabbits to stock your warren with, you must exercise the more patience, to wait for the pleasure and profit you may expect from it; such things there are in this world, time is required before men can make their advantages of them, therefore you must wait: a warren is of such a nature, that it cannot too soon abound with subjects that are proper for it, so as to be in a condition to yield good profit to the owner: those who desire to have a warren soon, ought to furnish themselves with a certain number of does big with young; these animals, by their young ones, will multiply in time; but they must not for the first two years be hunted, and but a little the third; but those who have most knowledge in this kind of management, take care to stock their warren, by the means of a great number of conies, and it is kept up the better when this is done.

WARREN. The next franchise in degree to a park, is the liberty and franchise of a free warren;

The beasts and fowls whereof are said to be four, *viz.* the hare, the coney, the pheasant, and the partridge, and no other, (being such as may be taken by long-winged hawks) that, for the most part, there are no officers in a warren, but the master of the game, or the keeper, and that there is no necessity of inclosing the same, as there is of a park.

And that because a forest, in dignity, is both the highest, and the greatest franchise; so it doth comprehend in it a chase, a park, and a free warren; for which reason the beasts of the chase, and beasts and fowls of the warren, are as much privileged within a forest, as the beasts of the forest are, every forest being in itself a chase, though a chase be not a forest, but a part of it; and the like may be said of a park or warren.

For which reason, the hunting, hurting, or killing any of the beasts or fowls of chase, park, or warren, within the limits of the forest, is a trespass of the forest, and to be punished only by the laws of the forest, and not otherwise.

Although it is said before, that the beasts and fowls of the warren are the hare, the coney, the pheasant, and the partridge, yet my Lord COKE accounteth all fowls *feræ naturæ*. There be both beasts and fowls of the warren, saith he; beasts, as hares, conies, and roes; fowls of two sorts, *viz. terrestres*, and *aquatiles*; (*i. e.* land fowl, and water fowl); that the *terrestres* are of two sorts, *sylvestres*, *i. e.* of the woods, and *campestres*, *i. e.* of the plain fields; the first are the pheasant, woodcock, *&c.* the second, partridge, quail, *&c.* the *aquatiles*, or water fowl, as mallard, hern, *&c.*

WART. An excrescence, or superfluity of spongy flesh that rises in the hinder pasterns of coach-horses, almost as big as a walnut.

A wart suppurates and voids red stinking matter, and is not cured but for a time, for it returns again.

Wart, or spongy Excrescence near the Eye of a Horse.

This imperfection proceeds from congealed phlegm lodged there, which in time causes the eye to waste, or to grow little, if it be not remedied.

For the cure: put three ounces of the powder of copperas into a crucible, on a charcoal fire, keeping the matter stirring from time to time; but take care to avoid the steams; continue a pretty smart heat till the matter grows somewhat reddish; then take it off the fire, and when it is cooled, break it, and beat the matter to a very fine powder; then incorporate four ounces of this powder with five ounces of album rhasis, and make an ointment, to be applied cold to the warts; anoint them lightly every day, and they will fall off like kernels of nuts, without causing any swelling in the part.

But you must take care to anoint nothing but the warts, nor must you work or ride the horse during the application of the ointment.

As soon as the warts are fallen off, which will be in a month's time, dress the sores with the Countess's ointment, and it will compleat the cure in a month more; for the sores are usually very deep where the warts are very large.

WASPS may be destroyed by smoaking the hatch or hollow tree with any stinking combustible article, or by scalding them with boiling water. By putting cyder, verjuice, wine, or any sour or sweet liquor, in a short-necked phial; you may also lay sweet apples, the entrails of beasts or fish, other flesh, or treacle, in an earthen dish, with a little water, or any liquid; and by these means you may destroy great numbers of them. Thrusting pieces of lighted brimstone-rags into the nests of wasps, and immediately covering their holes with earth, will destroy them. A copper coin of any kind held for a short time to the part wounded by a wasp, is an excellent remedy.

WATERS FOR FISH. If you have a pond that is supplied by a white fat water, upon great rains you may

may put in at first three hundred carps *per* acre, if there be three or four acres of pond; but otherwise, you must not put in so many: and it will be proper to put in also forty or fifty tenches for a trial; because this sort of water is very proper for carp, but being laid dry some time may do well for tenches also.

Perches may be added to what number you please, as suppose six hundred, for they are great breeders; and being also fishes of prey, they devour their own species as much, if not more, than any other fish. And these are accounted one of the best sorts of fish.

Take care how you put bream into these waters, for they grow up very slowly, though they will at length become very large, but in the mean time they breed so prodigiously, and have such a slimy, nasty fry, as both robs and fouls the water, which renders it unfit for other fish; but when a water is ten or twelve acres in extent, and fed with some brook, winter and summer, they will do well; otherwise not to be made use of.

As for pike, they are dangerous guests in such ponds, for if they are grown big, they will devour the best fish, and depopulate the water; but if you can get one hundred jacks once in two years, not exceeding nine inches, you may put them together with the carps, into great waters, so that your carps be not lesser than nine or ten inches; but you must not let them continue there more than two years; after which time put them into their peculiar ponds, where being duly fed, they will grow to be very large and fine fish.

It is not expedient to stock great standing waters with eels, for they are but of slow growth; and being also but of an indifferent size, they will be lean and dry; but such moats into which the sinks of houses drain, are places in which they will thrive well.

These directions relate particularly to the first stocking of new-made ponds; but after one, two, or three years, (for they must not continue longer full) when you come to re-stock, and so, on all occasions, you may put three or four hundred carps, and eight hundred tench (if the water feeds them) into an acre, besides perches.

You must likewise take notice, that if the fish with which you stock your ponds, be taken out of overstocked ponds, which renders them lean and poor, you must at the same time double your stock, or else the too sudden plenty of food at the first will surfeit them, and they will die of over-much blood, as has been found by experience.

WATER PROPER FOR HORSES. The preservation of horses depends considerably on the water they drink while they are travelling: that which is least quick and penetrating is best; a river being preferable to a spring, and a fountain to a draw-well.

However, if a man is obliged to let his horse drink such penetrating water, it ought to be set in the sun, or some of it warmed to correct the sharpness of the rest; or it may be a little amended by stirring it about with the hand, or throwing hay among it; but if the water be extreme quick and piercing, mingle warm water or wheat bran with it, and that will sufficiently correct the fault.

WATERING OF HORSES. The due performance of this requires the observance of the following rules:

All the while you are upon a journey, let your horse drink of the first good water you come to, after seven o'clock in the morning, if it be in summer-time, and after nine or ten in winter.

That is accounted good water, which is neither too quick and piercing, nor too muddy and stinking.

This is to be done, unless you would have him gallop a long time after drinking; for if so, you must forbear.

Though it is the custom of *England* to run and gallop horses after drinking, which we call watering-courses, to bring them (as they say) into wind, yet says M. DE SOLLEYSEL, it is the most pernicious practice that can be imagined for horses, by which many are rendered pursy.

While a horse is drinking, draw up his head five or six times, making him move a little between every draught; and notwithstanding he be warm, and sweat very much, yet if he is not quite out of breath, and you have four or five miles to ride, he will be better after drinking a little, than if he had drank none at all: it is true, indeed, that if the horse is very warm, you should at coming out of the water, redouble your pace, to make him go at a gentle trot, to warm the water in his belly.

You ought to let him drink after this manner during the whole time of your journey; because if when you happen to bait, he be hot, or sweaty, you must not let him drink for a long time, because it would endanger his life; and when his bridle is taken off, his excessive thirst will hinder him from eating, so that he will not offer to touch his meat for an hour or two; which, perhaps, your occasions will not allow you for a baiting time, and not to have any food will render him unfit for travel.

If you meet with any ford before you come to your inn, ride the horse through it two or three times, but not up to his belly; this will cleanse his legs; and the coldness of the water will bind up the humours, and prevent them from descending.

If your horse has been very warm, and you have not had the conveniency of watering him upon the road, he will, when unbridled, eat but very little, therefore he should have his oats given him washed in ale or beer, or only some of them, if you intend to feed him again after he has drank.

Some are of opinion, that horses are often spoiled by giving them oats before their water; because they say, the water makes the oats pass too soon, and out of the stomach undigested. But M. DE SOLLEYSEL affirms, that though it be the common custom not to do it till after, yet it is proper to feed with oats both before and after, especially if the horse be warm, and has been hard rid, for they will be a great deal the better for it, and in no danger of becoming sick.

Green Water for many Sorrances.

Take an ounce and a half of *Roman* vitriol, and as much

much sothe alum, an ounce of verdigris, and two ounces of copperas, reduce them all to a very fine powder, and put them into a two-quart bottle, into which pour a quart of the best and strongest white wine vinegar; then having tied some pieces of lead or iron about the neck of it, that so it may sink, put a hard roll of hay in the bottom of a kettle, that the bottom of the bottle may not touch the kettle; then cutting three notches in the sides of the cork, lest the bottle should break, stop up the bottle, set it in the kettle upon the hay, so that it may stand upright; then put so much cold water into the kettle, that about two or three inches of the neck of the bottle may remain above the water; then hang the kettle over the fire, and make it boil for half an hour, or so long till the vinegar has dissolved the powder; taking the bottle out now and then, and shaking the vinegar and powders together; and when you find that they are well mixed, take them off the fire, and keep it close stopped with a cork, for use.

The Method of using it is as follows:

Take an earthen pan which will hold about twelve quarts, fill this with chamber-lye, that has been made by healthy, sound, and young persons; and the staler the chamber-lye is, the better it will be for use. It ought to stand in the pan at least three weeks before you use it.

It will be proper to have a pailful of it always ready: and when you have occasion to use this medicine for a moderate grief, half a pint, or better, of the above described vinegar, with a quart of the stale chamber-lye, or if you would have it stronger, more of the vinegar: then they being mixed together cold, (or if in winter, hot) bathe the legs, heels, or parts of the horse affected with it, twice a day.

As to the virtues of this water, it is the best remedy yet known in the world, either for the prevention or cure of many great and dangerous sorrances, to which horses are liable; as malenders, which it cures at once or twice dressing.

The mange, either dry or wet, rat-tails, scratches, gourded or swelled legs and heels; it also prevents and cures the grease fallen into the legs and heels.

And it will also cure the farcy, if to these two last-named diseases you purge the horse before, and once, twice, or three times during the time of cure.

It is a noble cleanser and healer of all stubborn and foul ulcers and wounds in a horse; preventing the breeding of worms, and all proud flesh in wounds, as well as a repeller or driver away of any flux of humours from any part; also clifts and cracks in the heels, pains, &c. preventing wind-galls, by its repellent and strengthening quality.

The green water alone, without the chamber-lye, is the best of remedies for the cure of all fistulas, cankers, and galled backs, not disposing such sorrances to rot, fester, and grow worse, as all greasy and oily medicines do.

An excellent Eye Water.

Reduce lapis calaminaris to a very fine powder; also take powder of the best bole ammoniac, called *Venetian* bole, and the best white vitriol, of each an ounce: put them into a new earthen pipkin, which will hold four quarts, and boil them till the liquor is consumed to three quarters of a pint; then let it settle, and pour off the clear from the faeces; to which clear liquor, add two drachms of saccharum saturni, commonly called sugar of lead; salt of vitriol, two drachms; camphor dissolved in spirit of wine, better than a quarter of an ounce; tincture of aloes, better than half, but not quite three quarters of an ounce; red rose water, three quarters of a pint; prepared tutty, near, but not quite, half an ounce: mix all these together, and keep it in a bottle for use.

It is one of the best eye-waters for horses extant, for all diseases of the eyes, as pin and web, pearls, clouds, blood-shotten, sore and running eyes, salt, hot, and sharp rheums, ulcers, fistulas, bruises, stripes, (and if it be mixed with a small quantity of honey) also moon-blind, strengthening the sight to a miracle, by only syringing it into the eyes a syringe full two or three times a day.

As to its extraordinary virtues, a certain author gives the following instance:

A young unruly horse being put into a cart, in order to learn him to draw, was so restive, that two or three men could scarce govern him, so that one of the men, violently whipping him over the face, he happened to receive a most dangerous stroke by a knotted whip-cord, in the eye, so that the cord had quite cut through the first coat of the eye, so deep, that the dent or wound would more than bury the whip-cord; and that wound was all along the middle of the sight of the eye, which inflamed the eye and eye-lids to that degree, that the eye grew as big as one's fist; and all the best farriers judged it impossible to recover the sight; but the eye-lid being bathed with a rag dipped in a little hot beer, in which a little butter had been boiled, and a handful of sage leaves, as hot as the horse could endure it, the swelling was thereby soon brought down; and then two or three syringes full of the abovesaid water at a time being injected into the eye, and that two or three times a day, made a perfect cure of the eye in less than a week, and restored the horse to his sight as before.

Red Water.

This is a filthy humour issuing from any wound, sore, or ulcer, in a horse, which so long as it remains in, does so poison them, that they are not to be cured till it is brought out.

To effect this, take the root of the herb called Good King Henry, or All Good, and boil it in water, and give it him; or give him a good handful of mustard-seed beaten small, in white wine vingear, two or three times together, one after another; but you must be sure to keep

keep his belly rubbed with a good long stick by two men, one at one end and the other at the other.

WATERS OR HUMOURS IN HORSES. Their hind legs are subject to certain white, sharp, and corrupt humours or waters, which happen very rarely in the fore-legs, and are discovered by searching the pasterns, if a moistness be found beneath the hair, which is extremely stinking, and will grow all round the pastern and pastern joint, and sometimes almost up to the very ham.

These waters do frequently cause the pasterns to swell, keep the legs stiff, make the horse lean, and separate the flesh from the coronet, near the heels.

They may be easily put a stop to in their beginning, but after they have been of some continuance, it is an error of those who intend to disperse them; for although they may dry them up for a time, yet they will return and break out again.

As for the cure; if it be begun in winter time, they will occasion a great deal of trouble; but in the summer time, the white honey charge will produce such effects as are beyond expectation.

For Watery Eyes.

This infirmity proceeds either from rheumatic and moist humours, or from some stroke or blow, either with a whip, stick, or such like, and the cure is,

First bleed him in the eye-vein, then melt pitch, mastich, and rosin, of each equal quantities together, and spread it with a stick over his temples; then lay some wool over it, so as to lie flat to his head.

Then having dissolved some alum in white-wine, wash his eyes with it; or blow some powder of tutty into them; or you may mix a little tutty with fine honey, and touch the corner of the eye with it, and you will find the plaister will loosen and fall off, as the humour decreases.

WATERY SORES IN HORSES. There is a certain stinking or fretting matter, which issues out of the pores, and deadens the skin of the pastern, fetlock, and sometimes of the whole leg of a horse, and is so corrosive, that it loosens the hoof from the coronet at the heel, appearing on the skin in form of a very white and malignant matter, which shews the greatness of the corruption.

The breaking out of this matter is always ushered in by a swelling, and accompanied with pain, and at last acquiring a venomous quality, it is succeeded by warts, clefts, and nodes, which in process of time, over-run the whole part, and render the cure very difficult.

It commonly appears at first on the side of the pastern, and afterwards rises up to the middle of the leg, peeling off some part of the hair.

As for the cure; as soon as you perceive a horse to be seized with this distemper, let him blood sparingly, two pounds of blood will be enough; then give him every morning for eight days together, a decoction of guaiacum, or of box-wood, and afterwards purge him, observing the same method as is prescribed for the FARCIN, *which see.*

In the mean time you must shave away the hair, and if the leg be not gourded, rub the sore places very hard with a wisp, in order to apply the following ointment for drawing up water sores:

Take a pound of black soap, an ordinary glass full of spirit of wine, two ounces of common salt beaten small, and three ounces of burnt alum, with a sufficient quantity of meal: make an ointment of these, to be laid on the part without any covering or bandage. The next day wash the place clean with new-made urine, and apply the ointment several times, washing it as before.

WATER-SPANIEL; *how to train and order him for the Game in Fowling.*

The water-dog is of such general use, and so common amongst us, that there needs no great description of him; but there are great differences amongst them, as well in proportion, as otherwise.

As to colour, the curious will make a difference, as the black to be the best and hardiest; the spotted or pied, quickest of scent, and the liver-hued quickest in swimming: but, in truth, colour is not material, for without doubt there are good and bad of all colours, and that by experience is found: but his breeding, training up, and coming of a good kind, are the chief things; yet it must be confessed, that as to handsomeness, the colour is to be regarded, so is the proportion as to the shape; and then his head should be round, with curled hair, his ears broad and hanging, his eyes full and lively, his nose short, his lips like unto an hound's, his neck thick and short, his shoulders broad, his legs straight, his chine square, his ribs with a compass, his buttocks round, his thighs brawny, his belly gaunt, his pasterns strong and dew-clawed, and his fore-feet long and round, with his hair in general long and curled, not loose and shagged; for the first sheweth hardiness and strength to endure the water, and the other much tenderness and weakness.

Now for the training and bringing him up you cannot begin too early, I mean to teach him obedience, when he can but lap, for that is the principal thing to be learned; for being made to obey, he is then ready to do your commands; therefore so soon as he can lap, teach him to couch and lie close, not daring to stir from that posture without your commands; and the better to effect this, always cherish him when he does your will, and correct him when he disobeys: and be sure to observe, that in the first teaching him you never let him eat any thing, but when he does something to deserve it, that he may therefore know that food is a thing that cometh not by chance, or by a liberal hand, but only for a reward for well-doing; and this will make him not only willing to learn, but apt to remember what he is taught without blows, and to that end, have no more teachers than one, for variety breeds confusion, as teaching divers ways, so that he can learn no way well.

Another thing is, you must be very constant to the words of direction by which you teach him, chusing such as are most pertinent to that purpose, and those words

words that you first use, do not alter, for dogs take notice of the sound, not of the *English*, so that the least alteration puts them to a stand: for example, if you teach him to couch at the word *down*, this will be a known command unto him; and I am of opinion, that to use more words than what is necessary for one and the same thing, is to overload his memory, and cause forgetfulness in him.

And this method should be observed, as to the setting-dog.

You must teach him also to know the word of correction, and reprehension, for no lesson can be taught without a fault; and no fault should escape without reprehension, or at least of chiding, and in this be as constant to a word; as, *Go to, sirrah, rascal*, or the like; which at first should be used with a lash or jerk, to make him know, that it is a word of wrath or anger; neither must such words proceed from you lovingly or gently, but with passion and roughness of voice, together with fierceness of looks, that the whelp may tremble when he hears you speak thus. You must have certain words of cherishing when he hath done well, that he may be thereby encouraged, as, *That's a good boy, well done*, or the like, using therewith chearfulness of speech, nor without actions of favour, as spitting in his mouth, clapping him on the back, and the like; you must also use some words of advice, that when he is at his sport, he may the better perform the same, and they may serve to spur or put him forward with more chearfulness of spirit, as, *Take heed, hem*, or the like.

When your whelp is brought to understand these several words, viz. of instruction, correction, cherishing, and advice, and that he will couch and lie down at your feet, how, when, and as long as you please, and that with a word, or look only, then teach him to lead in a line or collar, and to follow at your heels, without coming too close or hanging back; the meaning of this is, to teach him to be more familiar and obedient unto you.

Having brought him to perfect obedience, to follow you in a line, the next thing must be, to make him follow you in like manner loose, without a line, and always to be at your heels, and to lie down by you, without your leave to the contrary: this is as necessary a lesson as can be taught him, for he must be so but upon special occasions, as to raise up fowl from their haunts, and find out, and bring what you have shot or killed, unto you.

The next lesson to learn him is, to fetch and carry any thing that you shall command him; and this you may begin to teach him by the way of sport, as by taking your glove, and shaking his head, making him to catch at it, and to play with it; and sometimes let him hold it in his mouth, and strive to pull it from you; then cast it a little way from you, and let him muzzle it on the ground; then take it from him gently, giving him cherishing, as, *That's a good boy, well done*, or the like.

After you have spent some time in this, and that you find him to take it from the ground, and to hold it in his mouth, as it were, from you, then begin to cast it further and further, giving your command, saying, *Fetch or bring it, sirrah*; and if he brings it, then cherish and reward him with meat, or a crust of bread, and let him have no food, but what he deserves by doing his lesson, and by your continual practice he will fetch your glove, or any thing else you throw out for him.

If at any time he offers to run away with your glove, or to toss it up and down wantonly, not bringing it you orderly, then first give him your word of instruction:

And if that will not do, your word of correction; and if neither avail, then proceed to blows, and give him nothing to eat as a reward, until he does as you command him.

When by this means you have made him perfect, and that he will fetch a glove readily wherever you throw it, bringing it to you, although in company, and all call him to come to them; you must then make much of him, and reward him very well: and having trained him to fetch your glove, then proceed to teach him to fetch whatsoever you throw from you, as balls, sticks, stones, money, or any thing that is portable.

As also teach him to carry live or dead fowl, and with a tender mouth, that when you have occasion to use him for the sport, he may bring them to you without tearing, or so much as bruising a feather.

As you walk with him in the fields, drop something behind you unknown to him; and being gone a little way send him back to seek it, by saying, *Back, sirrah, I have lost*; and if at first he stand amazed, urge him still, and cease not by pointing to him the way you would have him go, until by seeking out he finds that which you dropped; which make him take up, by saying, *That's it*, and to bring it after you; then drop it again, going twice as far as formerly, causing him to go back to seek it, not leaving him till you have made him find it, and bring it to you, for which cherish and reward him; and where he fails, there chastise or chide him, sometimes with angry words, other times with blows, and sometimes keep him fasting, according to his offence; and thus do until he will hunt the way back which you went, were it above a mile.

But if your dog happen to bring you a wrong thing, you must receive it from him, and cherish him; but send him back presently again, saying, *Away again*, or *I have lost more*, and be not satisfied until he hath brought you the right thing; and if he return without any thing, then be sure both to chide and beat him for his sloth and negligence.

When he will thus fetch, carry, and find out things thus lost, then train him to hunting, beginning first with tame fowl, which by your help (when they dive or otherwise) you may with little labour make him take, which will hearten and encourage him to the sport.

After this, make him use all his cunning without your assistance, whether he gets or loses the game, and according to his desert, reward or correct him: by this practice he will become master of his game, and be sure always

always that he bring his game (when taken) to the shore unto you without hurting it.

Your next business should be, to train him unto your fowling-piece, causing him to follow, as it were, step by step behind you, and under the covert of your shadow, until you have shot, or else to couch, or lie close, where you appoint him, by saying, *lie close*, until you have shot; and then upon the least notice, or beckoning, speedily to come and do what you command.

Some dogs are so expert, as to have their eye upon the game, and upon a gun's going off immediately run to fetch it; but it is adjudged not so good, for the piece should not be a warning to him, but your command; and if you give him this liberty at your shooting, when you come among your nets or lime-twigs, and as soon as he seeth the fowl entangled and flutter their wings, he will presently rush in amongst them, and will occasion the spoiling your lime-rod, and the tearing or entangling your nets.

The spaniel is of great use in moulting time, that is, when the wild-fowl cast their feathers, and cannot fly, but lie lurking about in secret places; which season is between summer and autumn: at which time take your dog into such places where they resort, causing him to hunt about; and when he finds them, they are easily taken, because they cannot fly.

In fenny countries, where fowl do much resort, great quantities may be so taken, driving them into places where you must have nets ready fixed, as in narrow creeks, or the like.

These fowl, if taken and kept tame, and fed with beasts livers, whey, curds, barley, paste, scalded bran, and the like, are excellent food, far surpassing those absolutely wild, both for plumpness, fatness of body, and also for sweetness of taste.

WATTLES; the gills of a cock, or the naked red flesh that hangs under a turkey's neck.

WEAK; easy branch, *See* BANQUET and BANQUET-LINE.

WEANING *of a Colt.*

When you have a mind to wean a foal, take it from its dam the over night, and put it in some empty place where it may rest, and out of the hearing of the mare.

The next morning give the foal fasting, a sprig or two of savin, rolled in butter, and keep him fasting for two hours after; then give him a little meat, as grass, hay, or chaff, with some clean water; manage him thus for three days one after another, by which time he will have forgot the dam; and if you intend to make a gelding of him, geld him; and after the swelling is assuaged, put him into a pasture, with other colt-foals by themselves, and the fillies into a pasture by themselves.

Let these pastures be spacious pieces of ground, where they may run till they are fit for the saddle.

WEAR } a bank or great dam in a river, contrived for
WARE } the taking of fish, or for conveying the stream to a mill.

To destroy WEASELS.

Take sal ammoniac, pound it, and with wheat-flour and honey make it into a paste, with the white of an egg; lay it in pellets where they come, and it will kill them.

WHEEZING, OR BLOWING IN HORSES, is quite different from pursiveness: for this wheezing does not proceed from any defect in the lungs, but from the narrowness of the passages between the bones and gristles of the nose.

And farther, these horses do not want wind: for, notwithstanding they blow so excessively when exercised, yet their flanks will be but little moved, and in their natural condition.

2. There are some horses that are thick winded, that is, have their breathing a little more free than the former; but neither the one nor the other are agreeable, or for any great service.

Yet a person may be liable to be mistaken in this case, for when a horse has been kept a long time in the stable without exercise, he will, at the first riding, be out of breath, although he be neither a blower, nor thick winded.

3. There are some wheezers or blowers, that rattle and make a noise through the nose; but this impediment goes and comes, and is only occasioned by abundance of phlegmatic stuff; for their flanks will not redouble, neither will they have a cough with it, and therefore they cannot be pursy.

WHELPS; those who have fair hounds, should chuse fair bitches, and such as are strong and well proportioned in every part, with large ribs and flanks.

The best season for coupling hounds, is in *January*, *February*, and *March*, for then they will litter in a good time of the year (that is, in the spring) so that they will be fit to enter in due course without loss of time, or of the season; for if bitches litter in the winter, it is very troublesome to bring up their whelps, and it will be difficult to keep them alive; cold being very injurious to all young creatures.

The dogs that line the bitches must not be above five years old, for if they are older (it is the opinion of many) the whelps which they get will prove dull and heavy.

You ought also to be sure to get good dogs for the bitches at their first growing proud, for some persons have made this observation, that if it be a mastiff, greyhound, or hound, that first lines a bitch, in all the litters that she will have afterwards, one of her whelps will resemble the dog that first lined her.

And although the first litter of whelps is not accounted so good as the second or third, because they are supposed to be both weaker and smaller, yet you should not fail to have her lined at first with a good fair hound.

When a bitch has grown proud, it is not good to cool her in the water; for that congeals the blood within her veins and arteries, and causes the belly-gripes, manginess, and other diseases.

When a bitch begins to grow pretty big with whelps,

suffer her not to hunt, or use any violent exercise, for that may cause her to cast her whelps; take care to feed her well, and provide her a clean and private place to litter in, and keep them there for a few days, that they may be familiarized with it.

When your bitch has littered, chuse those you wish to keep, drowning the rest; there will indeed be some difficulty in chusing the best; for according to the opinion of some, those will be the swiftest and best, that are the lightest while they suck; but will not be the strongest: others tell us, that that whelp that sees the last is best; and others advise to remove the whelps, and lay them in several places, watching the bitch, and that whelp which she carries first to the kennel, will prove the best.

Let the whelps have good fresh straw to lie on, and let it be often changed; do not let them be exposed to sun-shine or rain; and it will be of advantage to them to anoint their skins once or twice a week with hut-oil, mixed with saffron pounded, which will keep them not only from being annoyed with flies, but will kill worms of all kinds.

When the whelps are fifteen days old, let them be wormed, and a week after, cut or twist off one joint of their sterns; when they can see, give them milk to lap; and when they are two months old wean them, keeping them from their dams; they then ought to be well fed, but not too high kept; and now and then put some cummin-seeds in their bread, to expel or keep wind out of their bellies.

Some indeed advise to let the whelps suck three months, and afterwards to wean them, and then to put them to be kept in villages, till they are ten months old: giving a strict charge to those who keep them not to suffer them to eat carrion, and not to permit them to frequent warrens, which will be injurious to them.

Let them be fed with bread made of wheat, for rye-bread will pass too soon through them, and is so light that they will be narrow-backed; whereas hounds ought to have broad ones.

They having been kept in this manner till ten months old, take them up and put them into the fields amongst others, that they may be inured to live after the same manner; about which time begin by degrees to couple them with others, that they may learn to go a hunting.

Five or six days practice of this may do, and in order to make them tractable, in case they should go astray or open unseasonably, let them now and then feel the smart of your whip.

WHINE. An hunting term, used for the cry of an otter.

WHIPPING IN ANGLING. The fastening a line to the hook or to the rod; it is also used for the casting of the hook, and drawing it gently on the water.

WHITE FACE OR BLAZE; is a white mark upon horses descending from the forehead, almost to the nose. *See* CHANFRIN.

WHITE FOOT. A white mark that happens in the feet of a great many horses, both before and behind, from the fetlock to the coffin.

The horses thus marked, are either tramelled, crosstramelled, or white of all four.

Some horsemen place an unlucky fatality in those white of the far foot behind. *See* CHAUSSE-TROP, HAUT, and TRAMMELLED.

WHITE FOOTED (in Farriery) a quality of which it is said there are four good marks belonging thereto, and seven bad ones.

The first good mark is when the horse has only his fore feet, and the second is when he has his near hind-foot white.

The far hind foot white is accounted a bad mark.

The two fore-feet white, is accounted a bad mark, but not very common.

The two hind-feet white is a good mark, especially if he has a good star or blaze in his forehead.

The two fore-feet, and one hind-foot white, is somewhat better than the two fore-feet alone.

Four white feet are an indication of good nature: but such horses for the most part are not very strong; and their fore-feet will incline to be brittle, by reason of the whiteness of the horn.

Two feet on a side white is a bad mark, and so likewise when a horse is cross white-footed; though this by some is accounted a good mark, to have the far fore-foot and near hind-foot white, especially if he have a star with it.

ERMINED WHITE-FEET. Are such as are freckled with little black spots round the coronets, an excellent mark.

Lastly, the higher the white ascends upon a horse's legs, he is so much the worse.

But after all, the judgment drawn from marks and colours, is according to men's fancies; there being good and bad of all marks, as well as of all colours.

WHITE-HOUND, those hounds which are all of one colour are accounted the best hounds: in like manner, those which are spotted with red; but those that are spotted with a dun colour are esteemed of little value, being faint hearted, and cannot endure much labour.

But if they happen to be whelped coal black, which seldom happens, they commonly prove incomparable hounds.

But if white hounds are spotted with black, experience tells us they are never the best hare hunters. White and black and white and grey, streaked with white, are also the most beautiful.

A WILD BOAR, is called the first year a pig of the founder, the second year a hog, the third a hog-steer, the fourth a boar; at which age, if not before, he leaves the founder, and then he is called a singler, or sangler.

The wild boar was formerly a native of *Britain*, as appears from the laws of HOEL DDA, LEGES WALLICÆ, 41. WILLIAM the Conqueror punished, with the loss of their eyes, any that were convicted of killing him: CHARLES I. turned out wild boars in the New Forest, but they were destroyed in the civil wars.

To take Wild-fowl with Line Springs, &c.

Having found out any place where wild-fowl resort, either great or small, make use of this device:

Procure a bundle of sticks about a foot in length, sharpen them at one end, and let them be such as are forked at the other; stick these into the ground slightly, only so as to bear up the lines or cords hereafter mentioned, placing these sticks in straight lines, and at equal distances, all over the whole place where they resort.

Provide a sufficient quantity of packthread or small cord, and daub it all over with strong bird-lime, if you design it for strong fowl, or to be used in the water; or otherwise ordinary bird-lime will serve well enough.

Set the sticks not above six feet distant one from the other, and let the sticks be of such proportions as will be able to bear up the lines, which are to be laid all along over the forks, fastening the ends of the lines to the last sticks with slipping knots, that when any fowl comes to touch on any part of the line, the whole line may give way to ensnare it, so that the more it strives to get away, the faster it will be held.

If you set against the morning, fix the rods or sticks over night; and lay the lines on at least an hour before day; for if they are not laid so soon, it will be great odds but the fowls will be there before you.

But if you set for the evening, you must set up sticks and lines before sun set, lest the fowls resorting thither, and finding you there, be frighted and avoid the place; and it will also be proper to strew baits for them to entice them thither.

If you place these rods in the water, then you must set them so, that the lines be not above five or six inches above the water, that the fowl may touch on them as they swim to and fro, and you may then fix one end of the line, and only let the other end be with a running knot, and so you may be assured of finding what are caught.

If you set over any water, the sticks must be either longer or shorter, according to the depth of the water.

This device will not be so good in light nights; but in thick and dark fogs it is very good, for there is no need to watch them, but only to go to the place every morning and evening, and when you have made trial of one place you may remove to another haunt, and still preserve and supply the sticks, lines, and lime, as you see occasion.

If you set for water-fowls, it will not be amiss that some of the lines be about two feet high above the water, that they may ensnare the fowls as they make their flights, before they descend into the water, it having been observed that they are used to fly at about that distance at such times.

WILD-GOAT. An animal as big as a hart, though not so long-legged, but fleshy: they have wreaths and wrinkles on their horns, by which you may know what age they are, for according to the number of them, so many years old they are.

These wreaths this animal moves but not his beam, which if it be an old goat, it may be as big as a man's leg: they have also a large long beard; are of a brownish grey colour, very shaggy, having a black list down the ridge of their back, and their track is larger than the slot of a hart.

They fawn in *May* as a hind or doe does; they bring forth but one, which they suckle and bring up in the same manner as the tame goat does her kid; but about fawning time, the females separate from the males till rutting-time; in the mean while they will run at man or beast, and fight as harts do one against another.

They go to rut about *Allhallow-tide*, and continue therein a month or five weeks; when that season is over they descend from the mountains and rocks, which are their constant abode for their summer season, and herd themselves not only to avoid the snow, but because they can find no food any longer; yet they do not come very low, but keep at the foot of the hills till about *Easter*; when they return again, every one chusing some strong hold in the rocks, as the harts do in the thickets.

The male when he goes to rut, has his throat and neck much bigger than usual; he has a very strong back, and what is most strange, though he should fall from on high ten poles length, he will receive no harm, but will walk as securely on the sharp tops of rocks, as an hare on the highway.

In the last place, this beast feeds like a deer, only besides ivy he will eat moss, and the like stuff; in the spring they make their fewmets round, and afterwards broad and flat, as the hart does when he comes to feed well.

WILD-GOAT HUNTING. The chief season for this sport is at *Allhallow-tide*; but before you begin to hunt, you should take great notice of the advantage of the coasts, the rocks and places where the goats lie; then set nets and toils towards the rivers and bottoms, for it cannot be expected that the hounds should follow a goat down every steep place on the mountains.

It will also be necessary for some body to stand on the rock and throw down stones as occasion requires; and where the goat goes down the small brooks or waters in the bottom, there you should place your re-lays; but let them never stay till the hounds come to it that are cast off; this is the best help, for a man can follow neither on foot nor on horseback.

WILD-GOOSE CHASE. A method of racing that takes its name from the manner of the flight of wild-geese, which is generally one after another; so that two horses, after the running of twelve score yards, had liberty, which horse soever could get the leading, to ride what ground he pleased, the hindmost horse being bound to follow him, within a certain distance agreed on by articles, or else to be whipt up by the triers or judges who rode by; and which ever horse could distance the other, won the match.

But this chase was found by experience so inhuman, and so destructive to good horses, especially when two good horses were matched; for neither being able to distance

distance the other, till both ready to sink under their riders through weakness, oftentimes the match was obliged to be drawn, and left undecided, though both the horses were quite spoiled.

This brought up the custom of train-scents, which afterwards was changed to three heats and a straight course; and that the lovers of horses might be encouraged to keep good ones, places have been erected in many grounds in *England*.

WIND. A horse that carries in the wind, is one that tosses his nose as high as his ears, and does not carry handsomely.

The difference between carrying in the wind and beating upon the hand, is that a horse who beats upon the hand, shakes his head and resists the bridle; but he who carries in the wind, puts up his head without shaking, and sometimes bears upon the hand.

The opposite to carrying in the wind, is arming and carrying low; and even between these two, there is a difference in wind. *See* BREATH.

WIND BROKEN. Different authors have been of various opinions, with regard to its causes, and why some horses should be more subject to it than others; but among all the opinions hitherto delivered, that of the ingenious Mr. GIBSON seems the best founded. He thinks that its source is frequently owing to injudicious or hasty feeding of young horses for sale, by which means the growth of the lungs, and all the contents within the chest, are so increased, and, in a few years, so preternaturally enlarged, that the cavity is not capacious enough for them to expand themselves, and perform their proper functions. Nor is this opinion founded on bare conjecture; horses that have died broken-winded have been opened, and the lungs, and other parts, found too large for the chest.

But though hasty feeding is often the cause of this disorder, yet it is not always so. A narrow chest may naturally produce it, and it has been observed, that horses rising eight years old, are remarkably subject to this disorder.

The reason why this disorder becomes more apparent at the abovementioned age, than at any other, may be because a horse then arrives at his full strength and maturity: at six he commonly finishes his growth in height, when he lets down his belly and spreads, and all his parts are grown to their full extent; so that the pressure on the lungs and midriff is now increased.

Dissections of horses that have died broken-winded, have sufficiently proved what we have observed above, namely, that not only their lungs, together with the heart and its bag, were preternaturally large, but also the membrane, which divides the chest, and the diaphragm or midriff was remarkably thin. In some the disproportion has been found so large, that the heart and lungs have been almost twice their natural size, perfectly sound, and without any ulceration whatever, or the least defect in the wind-pipe, and its glands.

From these observations it abundantly appears, that the enormous size of the lungs, and the great space they occupy, by hindering the free action of the midriff, is the principal cause of this disorder; and as the lungs themselves are found much more fleshy than usual, they must consequently have lost a great part of their spring and tone.

As therefore the cause of this distemper proceeds from the largeness of the lungs, we may conclude that is one of those diseases to which a horse is subject, that cannot be cured by art, and that the boastings of those who pretend to cure it, are built on a sandy foundation, and will prove in the end vain and frivolous. They may, indeed, mitigate the symptoms, and give some relief to the creature, but an absolute cure is not in the power of any human being. All therefore that we shall pretend to do, is, to lay down some rules, which will have a great tendency to prevent this disorder, if pursued in time. But if they should not be sufficient, we shall give the form of some remedies that will mitigate its force, and render the horse capable of performing good service, notwithstanding his misfortune.

The first symptom preceding a broken wind, is an obstinate dry cough, attended with neither sickness nor loss of appetite; but on the contrary, a disposition to foul feeding, eating his litter, and drinking large quantities of water.

When a horse is troubled with this obstinate dry cough, and eats his litter, *&c.* it will be necessary to bleed him, and give him the mercurial physic, already prescribed, and repeat it two or three times. After which give the following balls for some time, which by experience have been found of the greatest efficacy in removing obstinate coughs:

Take of arum mosaicum finely powdered, eight ounces; of myrrh and elecampane, pounded, each four ounces; of anniseeds and bay-berries, each an ounce; of saffron, half an ounce: make the whole into balls with oxymel of squills.

Or, as the arum mosaicum is not easily procured, give the following:

Take of gum ammoniacum, galbanum, and assafœtida, of each two ounces; of squills, four ounces; of cinnabar of antimony, six ounces; of saffron, half an ounce: make the whole into balls with honey.

One of these balls, about the size of a pullet's egg, should be given every morning.

But it is not enough to give proper medicine: the diet of the horse must be carefully attended to, if we would hope for success; in order to this, the horse should eat very sparingly of hay, which as well as their corn, may be wetted with chamber-lye, or fair water, and this will make them less craving after water, which should by all means be prevented.

The chamber-lye is best for this purpose, because the volatile salts it contains, will be a means of removing their thirst. For the same reason garlick is found very efficacious in this disorder; two or three cloves being given in each feed; or three ounces of garlick bruised and boiled in a quart of milk and water, and given every other morning for a fortnight, have been found very serviceable; and therefore so easy a remedy should never be neglected; for by warming and stimulating the solids, and at the same time dissolving the tenacious

tenacious juices, which choak up the veſſels of the lungs, it greatly relieves theſe complaints.

Moderate exerciſe ſhould never be omitted in broken-winded horſes, and though for the firſt ſummer after they have not been able to endure much labour, yet many have been found leſs oppreſſed the ſecond, and ſome ſcarce perceptibly affected the third; and even able to perform a long journey, or endure great fatigue. And were it poſſible to keep a horſe conſtantly in the field, and taken up only when uſed, he would be able to do good ſervice for many years.

But it may not be improper to obſerve, that thoſe who hope to cure a broken-winded horſe, or even one that is troubled with an obſtinate cough, by putting him to graſs, will find themſelves wretchedly miſtaken; for on his being taken into the ſtable, and fed with dry meat, he will be much worſe than before, for want of that open and moiſt food he had been accuſtomed to; and ſome which were only troubled with a dry cough when they were put to graſs, have returned broken-winded. It ſhould therefore always be remembered, that if you have not the conveniency of keeping your horſe for a conſtancy abroad, not to put him to graſs at all, as inſtead of curing, it will tend to augment the diſorder.

In ſhort, the grand ſecret of managing horſes of this kind, conſiſts in having a particular regard to their diet and exerciſe: a moderate quantity only of hay, corn, or water, ſhould be given at one time, and the former conſtantly moiſtened, to prevent their requiring too great a quantity of the latter: and giving them moderate exerciſe, but never any that is violent. By this method, and giving the following ball once a fortnight or three weeks, the horſe will be able to do good ſervice for many years, provided his labour be never too violent.

Take of ſuccotrine aloes, ſix drachms; of myrrh, galbanum and ammoniacum, of each two drachms; of bay-berries, half an ounce; make the whole into a ball with a ſpoonful of oil of amber, and a ſufficient quantity of the ſyrup of buckthorn.

This ball operates ſo gently that there is no need for confinement, except on the very day it is taken, when the horſe muſt have warm meat and warm water.

Or, take mullet-leaves, dry them and reduce them to a fine powder, mix them with common honey, make them up into balls, about the ſize of a pigeon's egg; give the horſe three at a time for fourteen or fifteen days together, and let him not drink any cold water during the time; let his exerciſe be moderate, his hay ſprinkled with water, and wet his oats with good ale or beer.

Or, peel twenty cloves of garlic, and bruiſe them in a wooden bowl, and roll the garlic in a quarter of a pound of butter, into four or five balls, about the ſize of a walnut, and give them the horſe.

This medicine may be given to any horſe of what ſtate ſoever, if he be affected either with a cold, or poſe in the head, for it purges the head and lungs.

This is to be given in a morning faſting, and he muſt be rid moderately for half an hour after; and if you pleaſe you may repeat this doſe for three mornings ſucceſſively.

WIND-GALLS IN HORSES. A diſeaſe, being bladders full of a corrupt jelly, which being let out, is thick, and of the colour of the yolk of an egg; they are ſometimes large, and ſometimes ſmall, and grow on each ſide of the fetlock-joints upon all four legs, and are often ſo painful, eſpecially in the ſummer ſeaſon, when the weather is hot, and the ways hard, that they cauſe him not only to halt, but even to fall.

They are found on various parts of the body, where there are membranous or tendinous expanſions, but generally their ſeat is about the back-ſinews, on the fore and hind legs, and moſt frequently on the latter.

When ſeated near the joints, or upon the tendons, their cauſe is, for the moſt part, a bruiſe or ſtrain, and their contents are both air and a ſort of a jelly: but when the interſtices between the muſcles are the ſeat, their contents are only air.

Beſide their unſightlineſs, in hot weather, and on hard roads, they make the horſe go lame: yet weakly young horſes, as they get ſtrength, generally out-grow them, though nothing hath been applied to deſtroy them.

They are cauſed, for the moſt part, by extreme labour and heat, whereby the humours, being diſſolved, flow to the hollow places about the nether joints, and there ſettle, which is the cauſe of this malady.

Thoſe that contain only air, may be opened and treated as a common wound: thoſe that contain a quantity of jelly, and have their ſeat on a tendon, may be tried with aſtringent application and bandage, ſuch as a decoction of oak-bark, with alum in verjuice, with which the wind-gall may be frequently waſhed, and a flannel rag, dipped in it, may be ſecured on the part with a proper bandage; but the beſt method is the application of bliſters to the part. Apply a little of the following ointment every other day for a week, and a diſcharge will be brought on, but cannot eaſily be continued: when it ceaſes, the horſe may return to his labour a little while, after which repeat this application once in a month, until the cure is effected, which will ſometimes be a year or more. Thus you prevent ſcars, which are a neceſſary conſequence, and indeed, ſometimes a fulneſs or a ſtiffneſs in the joint, when firing is uſed.

Bliſtering Ointment.

Take of cantharides, two drachms: euphorbium, one drachm; Flanders-oil of bays, one ounce; mix them well together.

The uſual method is, to open them the length of a bean, and ſo preſs out the jelly; and then to apply the white of an egg, and oil of bay, with hards plaiſter-wiſe thereto; or, after the jelly is out, wrap a wet woollen cloth about it, and with a taylor's hot preſſing-iron rub upon the cloth till all the moiſture is dried up; then daub it all over with pitch, maſtich, and roſin boiled together, and lay hards over all, but you muſt firſt ſhave away the hair, and open the ſorrance.

At the first appearance of a wind-gall the tumour should be bathed twice a-day with vinegar or verjuice, and a proper bandage applied to the part. Or you may foment the swelling with a decoction of oak bark, the rind of pomegranate and alum boiled in verjuice; and after the fomentation apply a proper bandage.

Sometimes neither of the above methods will answer the intention, and consequently there will be a necessity to have recourse to others, and accordingly several have been given by different authors; but the best is mild blisters, which will never fail of drawing off by degrees both the air and the fluid matter contained in the tumour, and consequently of curing the disease. In order to this, a small quantity of the blistering ointment should be laid on every other day for a week, during which a plentiful discharge will be produced, and the swelling dispersed. This method will not only cure the disease, but also cure it without leaving a scar, or stiffening the joint; both which are the common consequences of firing. But you should use the milder blistering ointment; I mean that without the corrosive sublimate.

A wind gall upon the sinew, that grows hard, makes a horse halt, and, in the end, makes him lame.

Your long-jointed horses are apt to be wind-galled, though they work never so little.

The wind-galls that we call sinewy, happen commonly in the hinder legs, and nothing but fire can cure them; nay, sometimes fire itself will not do. *See* VESSIGNON.

WITHERS OF A HORSE, begin where the mane ends, being joined to, and ending at the tip of the shoulder-blades.

These parts should be well raised and pretty strong, because it is a sign of strength and goodness; they keep the saddle from coming forward upon the horse's shoulders and neck, which immediately galls and spoils him, and a hurt in that place is very difficult to cure; they should also be lean and not too fleshy, for then they will be more subject to be galled.

As to sores in the withers: the origin of these diseases indicate the cure. If they are caused by accidents, and rendered formidable by neglect, care should be taken not to let it increase by time; but as soon as they are discovered attempt the cure, which may in general be performed by bathing the part with hot vinegar three or four times a day. If this should not be sufficient to disperse the tumour, let an ounce of oil of vitriol be added to a quart of vinegar, and the part well bathed with it. You may dissolve an ounce of white vitriol in a little water, and add the solution of the mixture of oil of vitriol and vinegar, which will augment the repellent quality of the medicine. If the swelling be attended with heat, smarting, and little hot watery pimples, it should be bathed with the following mixture, instead of that given above:

Take of crude sal ammoniac two ounces: boil it in a quart of lime water, or when lime water cannot be had, in the same quantity of common water, adding an handful of pearl ashes; take it from the fire, and when settled pour off the clear part of the decoction, and add to it half its quantity of spirits of wine. Bathe the part well with this mixture, and afterwards anoint it with linseed oil, or ointment of elder, which will soften and smooth the skin.

But when the swellings are critical, the consequence of a fever settled on this part, you must avoid the repelling method, and assist in bringing the swelling to matter, by means of suppurating poultices: experienced farriers advise, never to open these tumors till they break of themselves: for, if they are opened before they are ripe, the whole sore will be spongy, and discharge a bloody ichor, which soon degenerates into a sordid ulcer. But take care to enlarge the openings, and pare away the lips, that your dressings may be applied easily; and avoid the ligament which runs along the neck to the withers: if a gathering forms on the opposite side, open it in the same manner; but take care they incline downwards, for the sake of depending orifices, and letting the matter flow off easily. If the bones should be found foul they must be dressed with tincture of myrrh till they scale off. If the fungus is very troublesome, and the discharge oily, yellow, and viscid, pledgets soaked in the following (made hot) have been found effectual, bathing it round with spirit of wine and vinegar:

Take half an ounce of blue vitriol dissolved in a pint of water; oil of turpentine, and rectified spirits of wine, of each four ounces; white-wine-vinegar, six ounces; oil of vitriol and Ægyptiacum, of each two ounces.

When the cavities are truly fistulous, the callosities must be cut out, when it can be done, with a knife; and the remainder destroyed by corrosives.

When the drugs mentioned in the last article cannot conveniently be had, take brandy, and dilute in it a bit of soap, and then rub the swelling with it till you make a lather; repeat this every three or four hours till the tumor dissipates. When you cannot get brandy, use urine, brine, or water well salted, with the soap; but these must be used ten or twelve, instead of three or four, times a-day.

If all other means are wanting, as soon as you perceive this disorder, take a green turf out of some meadow, with the earth sticking to the roots, and apply it to the swelling on the grassy side, renew this every three or four hours till the tumor disappears, or till you have furnished yourself with one of the remedies before-mentioned.

Impostbumations in the Withers.

Suffering matter to gather in the swellings on the withers, is the occasion of this, and a most terrible disorder it is in the army, especially in hot countries, where the flies are very troublesome. As the horse moves, the matter trickles down continually between his body and his shoulder, and as it can have no passage outward, because you cannot force one through the blade-bone, those who know not how to make the following operation, are obliged to give all such horses over:

You must first blind your horse and throw him down on the ground; then take a stake about as thick as your leg, four or five feet long, and sharp at one end, drive it

it into the ground with a beetle, and place the horse that it may stand just between his shoulder and his body, so that he cannot stir while you perform the operation, which is thus done. Tie a cord to the horse's foot, and about two yards distant drive another stake into the ground, to serve as an axle-tree to a coach or cart wheel, that you must put thereon; fasten the other end of the cord to this wheel, and then turn it about, till, by winding up the cord, you extend the horse's leg as much as it will bear; you may then make an incision between the body and the shoulder, to the very top, to come at the matter behind the blade-bone, by an opening to be afterwards made. The incision is made with a flat-iron, somewhat crooked, about an inch broad, and as thick as two crown pieces; the curvity of this instrument is in proportion to the ribs, between which and the shoulder it must pass, in order to let out the matter that is lodged above. And for this purpose you must introduce a small rowel, from the top of the withers to the bottom, between the shoulder and the trunk, which may be easily done if your farrier has ever so little address. This rowel must be left in only 24 hours, and then let it be dressed like any common wound, which method will soon put your horse out of all danger, as the matter between the trunk and the shoulder will be discharged. You may make the rowel either with Hungary-leather, or with tow and horse-hair twisted together, dipping it into warm basilicon. If at the end of three full days the matter does not run plentifully below, I would recommend the use of the rowel a day or two longer.

Never forget, during the whole process of the cure, that your horse is to have no oats, but only scalded bran; besides that, it is absolutely necessary to make him eat root of bastard rhubarb, or the herb patience, which grows almost in all countries and is a kind of wild sorrel; it shoots up in meadows, and by the sides of ditches, and sometimes is very large; the root is yellow, like that of sorrel, but both stalk and leaves are much larger, though of the same colour, at the time of feeding. That which grows in water is best, and next, that which grows in fat land; but for want of one sort the other may be used, and the more a horse eats of either, cut very small, the sooner will he be well. This root is also good for all other sorts of wounds whatsoever; and it is certain, that in a temperate climate, when the flies give no disturbance, a horse may be cured by means of this root only, without any great operation.

WITHERS, of the bow of a saddle. *See* Bows.

WITHER-BAND. A band or piece of iron laid underneath a saddle, about four fingers above the withers of the horse, to keep tight the two pieces of wood that form the bow.

WITHER-WRUNG. A horse is said to be wither-wrung when he has got a hurt in the withers; and that sort of hurt is very hard to cure.

WOLF. A kind of wild mastiff, that preys upon all kind of things, and will feed on carrion, vermin, *&c.* They will kill a cow or a bullock; and as for a sheep, goat, or good porker, they will easily carry him off in their mouths, without its touching the ground; and will, notwithstanding the load, run away so fast, that they are hardly to be stopped but by mastiffs or horsemen. There is no beast that runneth faster than the wolf, and holdeth so long in speed. A dog-wolf may be known from a bitch by the tracks of his feet: for the dog-wolf has a greater heel, toe, and nails, and a bigger foot; besides the bitch commonly casts her fiants in the middle of the highway; whereas the dogs cast them either on one side or other of the path.

When any one would hunt this creature, he must train him by these means: first let him find out some open place, a mile or more from the great woods, where there is some close standing, to place a brace of good greyhounds in, if occasion be, which should be closely environed, and some pond of water by it; there he must kill a horse that is worth little, and taking the four legs thereof, carry them into the adjoining woods and forests; then let four men take each of them a leg of the horse, and drag it at his horse's tail all along the paths and ways in the woods, until they come back again to the place where the carcase of the said beast lies; there let them lay down their trains. Now when the wolves go out in the night to prey, they will follow the scent of the train, till they come to the place where the carcase lies: then let those who love the sport, come with their huntsmen early and privately near the place; and if they are discernable as they are feeding, first let them consider which way will be the fairest course for their greyhounds, and place them accordingly, and as near as they can let them fore-stall with their hounds, the same way that the wolves fled or are flying either then or the night before; but if the wolves be in the coverts near the carrion that was laid for them to feed on, in such case, let there be hewers set round the coverts, to make a noise on every side, but not that where the greyhounds are placed, and let them stand thick together, making what noise they can to force them to the hounds; then let the huntsman go with his leash hound, and draw from the carrion to the thicket's side, where the wolves have gone in; and there the huntsman is to cast off the third part of his best hounds, for a wolf will sometimes hold a covert a long time before he comes out; the huntsmen should keep near the hounds, and encourage them with their voice; for many hounds will strain courtesy at this chase, although they are fit for all other chases. This creature will stand up a whole day before a good kennel of hounds, unless greyhounds or wolf-dogs course him. If he stand at a bay, have a care of being bit by him, for being then mad, the wound is hard to be cured.

It is best entering of hounds at young wolves which are not above half a year old, for a hound will hunt such more willingly, and with less fear than an old wolf; or they may be taken alive with engines, and breaking their teeth, you may then enter the hounds at them.

When the wolf comes to the greyhounds, they who hold them ought to suffer the wolf to pass by the first rank, until he advance further, and then let the first rank let loose their greyhounds full in the face of the wolf; and at the same instant let all the other ranks let slip also; so that the first staying him but ever so little he may be assaulted on all sides at once, by which means they shall the more easily take him.

WOLF-

WOLF-NET, a kind of net so called, because it is a great a destroyer of fish, as well in rivers as ponds, and may not unfitly be called The Little Raffle, as being exactly the same, except the four wings. *See* Plate XVI.

The first figure represents it only with the traces or lines, that the form and proportion thereof may be better apprehended.

You must begin to work it upon sixteen meshes of lever, and to cast the accrues from four, to four meshes to the first row made, near the lever, and continue the other rows in the same manner, making the accrues over-against those found at the ranges of preceding meshes, until the net comes to be a foot and a half long, which will be one of the gullets.

When you are come to this length, you must give over making any more accrues, and work without increase or diminution; and when you have brought it to be three feet more in length, leave an opening, *See* Plate XVI.

Instead of working all that you have hitherto done to your net round ways, return upon your work, and when you come to the end, do the same again, and continue this way of making the meshes till you have wrought a foot in length; and then work round-ways, as at first, till you have brought it to be three feet more in length.

This trunk or coffer will consist of seven feet without the two gullets: then make the second gullet, by taking two meshes at a time at each quarter of the round of the net, in order to diminish it to sixteen meshes, as you had begun at the other end.

When this is done, fasten it to the hoops, by putting the first A, E, G, S, exactly upon the range of meshes, near the first, where you have cast your accrues; and the other D, K, V, F, on the other end of the coffer, that so the other two hoops between both ends, denoted by the letters, B, H, C, I, may be at an equal distance; then adjust the gullets like those of the coffer of the raffle, closing the regard M, the four hoops which you use to the wolf, will be as big as those of a tun, which may be made use of upon this occasion.

This net must be carried to the water-side, near the place where you intend to pitch, which to do well should be some ground full of rushes, sedges, and such like water-grass; then, with a paring-knife, quarter out a place for the nets by cleansing away all the trash and weeds near it, the larger the better, especially if you cut two alleys in a direct line, a pretty length, one on each side the net, by which the fish might be invited, and, as it were, guided to the net.

Then you having ready four sticks or poles D, E, K, U, about the thickness of a man's arm, and in length five feet and a half, with holes and notches near their ends, tie them with cords round the hoops to keep the net tight, as is represented by the letters A, B, C, D.

Let also four little cords hang to the stick G, H, I, K, in order to tie stones to them, to sink the net to the bottom of the water; and also fasten a cord L, R, three fathom in length, to the pole L, for drawing the net to shore, that you may not be obliged to go into the water for it, though perhaps you were forced so to do, when you laid it there; this do, especially if you place the net in the middle of any wide river; but if you place it within ten or twelve feet of the bank, you may then cast in the net, and settle it afterwards, according to your mind, by the help of a long pole, or the like; though the former is a better way, but indeed more troublesome.

WOLVES-TEETH. An inconvenience that happens to a horse, being two small teeth which grow in his upper jaws, next the great grinding teeth, which are so painful to him that he cannot endure to chew his meat, but is forced either to let it fall out of his mouth, or to keep it still half chewed.

For the cure; Tie up the horse's head to some post or rafter; open his mouth with a cord as well as you can, and having an iron instrument made like a carpenter's gouge, with the left hand set the edge of the tool to the foot of the wolfs tooth on the outside of the jaw, turning the hollow side of the tool downwards, and knock it out as steadily as you can with a mallet, and put some salt finely powdered into the hole.

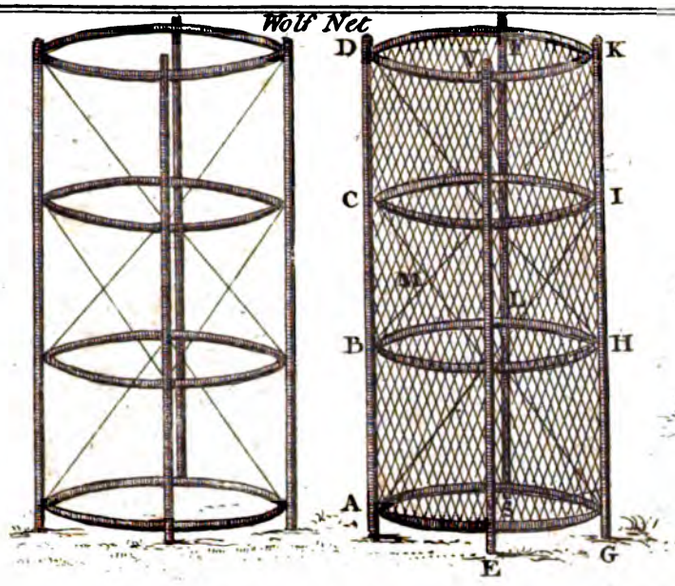
Now, if the upper jaw-teeth hang over the under jaw-teeth, and so cut the inside of the mouth, then take your gouge and mallet, and pare the teeth shorter by little and little, turning the hollow side of the tool downwards towards the teeth; for, by so doing, you shall not cut the inside of his cheeks; then file them all smooth, not leaving any ruggedness, and wash the horse's mouth with salt and vinegar.

WOODCOCK. A travelling bird, having a very long bill, and spotted with grey. They commonly come into our and the neighbouring countries about the middle of *October*, and go away again in *March*. They do not stay above eight or ten days in a place; or if they tarry longer, it is because they are hurt, and so stay there till they are cured.

They seldom, if ever, fly in the day-time, unless forced to it by man or beast, and then they retire into thick woods, where there are void spaces covered on all sides, there they abide for the whole day, searching for earth-worms under the leaves, *&c.* When night comes on, they go out of the woods in quest of water and meadows, where they may drink and wash their bills, which they have fouled by thrusting into the earth; and having passed the night, as soon as the day begins to appear, they take their flight to the woods. In their flight they use shady places, and coast it along a great way in search of the tallest woods, so that they may be the more concealed, and be more under covert from the wind. They fly always low, till they find some glade to go across, and love not to fly high, nor dare to fly among trees, because, like hares, they cannot see well before them, and for which reason are easily taken with nets spread along the forest, or in glades.

Your draw-nets are very profitable in such countries as are very woody, for you sometimes take a dozen of woodcocks in them.

Supposing then that your range of wood be about three hundred paces long, more or less, in some place towards


Wolf Net
D
K
C
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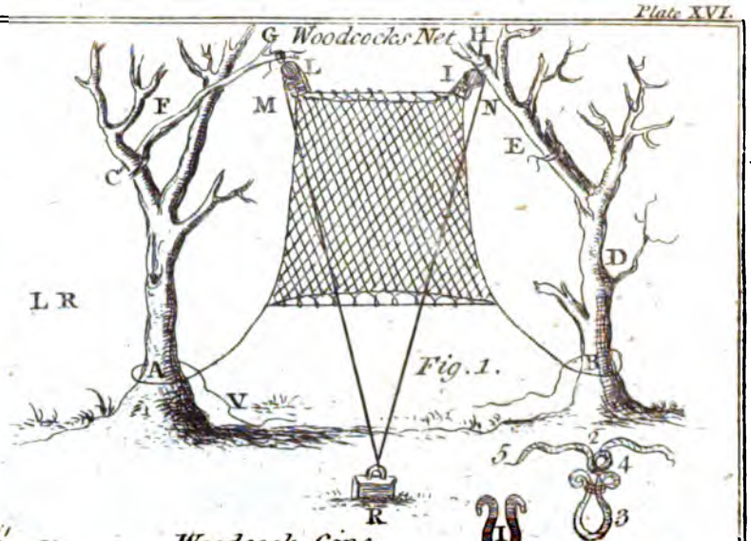
G Woodcocks Net H
L
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L R
A
V
Fig. 1.
R


Woodcock Gins
Fig. 3.
A
F
B
G
C
H
D
I
E


Woodcock Gins
X
H
Fig. 2.
V
S
t
b
L
M
I
R
P
A
K

towards the middle cut a walk through it, so that there may be a space of six or eight fathoms between the tree A, and the tree B; the place must be well cleared, and without trees, bushes, under-wood, or stones, and six fathom square; then prune, or cut off all the front boughs of the two trees, A, B, to make way for the net to hang and play without being entangled. See *Plate* XVI. *fig.* 1.

The next thing is, to provide two strong logs of wood, which open or cleave at the biggest ends, as marked C, and D: tie the middle parts fast to some boughs of the tree, as the letter E, and F, direct, and let the tops hang over as G, and H, represent, to the end that the net may be a little distance from the trees: you should have always in readiness good store of pullies or buckles made of glass, box, brass, or the like, which should be about the bigness of a man's finger, according to the form designed by the second figure, and fasten one at each end of the perches or logs G, and H.

Having tied on your pullies about two branches, marked 3, a certain cord of the thickness of one's little finger, then tie another knot in the said cord, about the distance of a hand's breadth, from the knot marked 4, and so let the two ends of the cord 5 and 6, hang down about a foot long each, that therewithal you may fasten them to the pullies, which are at the end of the perches or logs, as represented by the letters I, and L, close to the notches of the porches G, and H.

These notches serve to hinder the pullies from descending lower than the place where you would have it remain.

Then clap into each pully a small packthread, the end of each of which should reach to the foot of the trees, that by the help of them you may draw up two stronger cords into the same pullies where you hang the net, and not always be forced to climb up into the tree: these latter you may let always hang, provided you live by honest neighbours.

The last thing to be provided is a stand, to lie concealed, and wait for the coming of the woodcock: it matters not on what side it be, provided it be over adroit, six or eight toises from the middle of the net, as at the place marked R.

About half a dozen boughs of about the height of a man, pitched up together, and interwoven, may serve for a stand; you may sit upon a little hawn or fern, and at three or four feet distance from thence towards the net, force a strong stake into the ground, at the place marked Q; whereon fasten the lines of the net when it is drawn up.

It is not necessary to make use of two pullies, one only is enough on a side, as at N, and the other at I; then tie a long pole at one of its ends, and the other is fastened to a tree a little above C, by the means of a cord, which gives the pole liberty to be raised up or lowered, as you would raise up or lower the net; the sportsman should have one cord to hold, and place himself on the side of the tree B, where he may not be discerned.

When a woodcock is taken, the net must be let down as readily as possible, for he may by struggling make his escape, and then you must break a wing and crush his head: the net must be immediately set up again, for it may happen the other woodcocks will come to be taken, which you miss, if tedious at your work.

If any beast comes athwart you, you must let him pass under your net about five or six feet; then make a noise with a shout, and so let go; the beast, at the first noise, will retire back, and so become ensnared; to be sure, if you let go while he is just under the net, he will either spring forwards or backwards, and not be taken, but will most likely retire back.

It often happens, that a man perceives a great thoroughfare of birds between some coppice timber-woods over a certain piece of ground, where he wants the conveniency of a good tree, to oppose some other which possibly stands according to his mind; but whether he wants one or two, if he finds the place likely, and that, in probability, it will quit his cost; let him then take one or two trees fit for the purpose, and plant them deep in the ground, that they may stand all weathers.

If you would take woodcocks by nets in high woods, by driving them therein, your net must be like the rabbit-hays, but not so strong, and about twenty fathoms long, and you should have two or three of them.

Being provided with nets, and having the assistance of five or six persons to go into the wood with you, which should be at seven or eight years growth, for the older the better, go into some part thereof, about the middle, if it be not too large, and pitch your nets along as you do for rabbits, but one joining to the other, slope-wise, hanging over that way which you design to drive the cocks: your nets being thus fixed, let your company go to the end of the wood, at about ten rods asunder, and having sticks in their hands, make a noise therewith, and their voices, as if they were driving cattle along, and so go forward, till you come to the place where the nets are set, and you will not fail to catch those in that part of the wood: then, when that part of the wood is thus drove, turn your net slopewise on the other side, and going to the other end, observe the aforesaid directions: you may, by this way, take them at any time of the day with great ease and pleasure.

To catch Woodcocks in Woods by Gins, Springs, or Nooses.

Such as are wont to follow this work, after they have set them, need not lose their time, but go out at four in the afternoon, and the effect will be much the same: they must be provided with several dozens of these snares, more or less, according to the place in the wood where the woodcocks are; these nooses are made of good long horse-hair, twisted together with a running buckle at one end, and a great knot at the other, which they pass through the middle of a stick cleft with the point of a knife; and then open it, and put in the end of the horse-hair noose, and then make knots to keep it tight, to hinder it from passing through the

towards the middle cut a walk through it, so that there may be a space of six or eight fathoms between the tree A, and the tree B; the place must be well cleared, and without trees, bushes, under-wood, or stones, and six fathom square; then prune, or cut off all the front boughs of the two trees, A, B, to make way for the net to hang and play without being entangled. See *Plate* XVI. *fig.* 1.

The next thing is, to provide two strong logs of wood, which open or cleave at the biggest ends, as marked C, and D: tie the middle parts fast to some boughs of the tree, as the letter E, and F, direct, and let the tops hang over as G, and H, represent, to the end that the net may be a little distance from the trees: you should have always in readiness good store of pullies or buckles made of glass, box, brass, or the like, which should be about the bigness of a man's finger, according to the form designed by the second figure, and fasten one at each end of the perches or logs G, and H.

Having tied on your pullies about two branches, marked 3, a certain cord of the thickness of one's little finger, then tie another knot in the said cord, about the distance of a hand's breadth, from the knot marked 4, and so let the two ends of the cord 5 and 6, hang down about a foot long each, that therewithal you may fasten them to the pullies, which are at the end of the perches or logs, as represented by the letters I, and L, close to the notches of the porches G, and H.

These notches serve to hinder the pullies from descending lower than the place where you would have it remain.

Then clap into each pully a small packthread, the end of each of which should reach to the foot of the trees, that by the help of them you may draw up two stronger cords into the same pullies where you hang the net, and not always be forced to climb up into the tree: these latter you may let always hang, provided you live by honest neighbours.

The last thing to be provided is a stand, to lie concealed, and wait for the coming of the woodcock: it matters not on what side it be, provided it be over adroit, six or eight toises from the middle of the net, as at the place marked R.

About half a dozen boughs of about the height of a man, pitched up together, and interwoven, may serve for a stand; you may sit upon a little hawn or fern, and at three or four [illegible] distance from thence towards the net, force a st[illegible] into the ground, at the place [illegible]rked Q; [illegible]ten the lines of the net when [illegible]drawn [illegible] make [illegible], one [illegible] at I; [illegible] her is [illegible] s of a

down as readily as possible, for he may by struggling make his escape, and then you must break a wing and crush his head: the net must be immediately set up again, for it may happen the other woodcocks will come to be taken, which you miss, if tedious at your work.

If any beast comes athwart you, you must let him pass under your net about five or six feet; then make a noise with a shout, and so let go; the beast, at the first noise, will retire back, and so become ensnared; to be sure, if you let go while he is just under the net, he will either spring forwards or backwards, and not be taken, but will most likely retire back.

It often happens, that a man perceives a great thoroughfare of birds between some coppice timber-woods over a certain piece of ground, where he wants the conveniency of a good tree, to oppose some other which possibly stands according to his mind; but whether he wants one or two, if he finds the place likely, and that, in probability, it will quit his cost; let him then take one or two trees fit for the purpose, and plant them deep in the ground, that they may stand all weathers.

If you would take woodcocks by nets in high woods, by driving them therein, your net must be like the rabbit-hays, but not so strong, and about twenty fathoms long, and you should have two or three of them.

Being provided with nets, and having the assistance of five or six persons to go into the wood with you, which should be at seven or eight years growth, for the older the better, go into some part thereof, about the middle, if it be not too large, and pitch your nets along as you do for rabbits, but one joining to the other, slope-wise, hanging over that way which you design to drive the cocks: your nets being thus fixed, let your company go to the end of the wood, at about ten rods asunder, and having sticks in their hands, make a noise therewith, and their voices, as if they were driving cattle along, and so go forward, till you come to the place where the nets are set, and you will not fail to catch those in that part of the wood: then, when that part of the wood is thus drove, turn your net slopewise on the other side, and going to the other end, observe the aforesaid directions: you may, by this way, take them at any time of the day with great ease and pleasure.

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the cleft; this stick is about the bigness of one's little finger, and about a foot long, being sharp-pointed at one end, the better to fix it in the ground, to each of which they fasten a noose or spring. *See* Plate XVI. Fig. 2.

Having bundled them up, you go into a coppice, that has most leaves, in order to find if there are any woodcocks there; and this may be perceived by the leaves on the ground, which are ranged both on one side and the other by the woodcocks, in searching for worms under them, and by their dung, which is of a dark grey colour; when you find there are woodcocks in that place, then take a great round of about forty or fifty paces off, which is represented by the following figure:

The most proper places for this purpose are, amongst bushes and small coppices, and the manner is thus:—suppose the branches marked A, B, C, D, E, were so many stumps; make a hedge-row of half a foot high, of broom, furze, brambles, *&c.* from one stump to another, leaving a gap in the middle for the woodcocks to pass, as F, G, H, I; so that the woodcock walking in the wood in search of food, and finding this hedge-row, he will follow it till he comes at the gap, for he will never fly; and therefore you should fix the string there, opened in a round form, and laid upon the flat ground, supported only by some leaves; and the woodcock entering the gap, can scarce avoid being taken by the legs; the form of the extended snares are represented in Plate XVI. fig. 3.

If in walking in the woods, you should find nooses, and the like, that are set five or six inches above the ground, such as are denoted by the letters F and G, it is a sign partridges frequent that place, and that the peasants come to take them; we often find partridges taken in the same manner: there are those who make little hedge-rows of different lengths, and in different numbers, as they think fit, according to the game they suppose the place may afford.

It has been observed, that woodcocks, in the night-time, frequent springs, and the like places, because they do not freeze, and those persons who make it their business to catch them, will not forget in the morning to walk along the sides of rivulets, springs, marshes, and ditches, that are under the covert of woods, in order to find out whether any woodcocks had been there the night before; for they will not fail to return thither, if they have been once there before, and therefore they must lay snares for them, according to the following figure:

Suppose the oblong square, *See* fig. 2, should be a ditch full of water, frequented by woodcocks, and that its bank should be that side represented by the figures 2, 3, 4, stop all other places, by which the woodcock can come at the bank of the ditch, from 2 X as far as A Z, with broom and the like things, and on the fairest bank make a small hedge, 2, Y, P, 3, M, N, about five or six inches, and about half a foot distant from the water; but in this hedge leave gaps at the distance of about five or six feet from one another, more or less, according to the extent of the place: these passes are denoted by the letters P, 3, M, where the snares or springs are laid; those who follow this sport, fix at the edge of the gap five inches high, and not so thick as a man's little finger, and within half a foot of the other side of the pass, a small bow, two or three fingers high, which forms, as it were, a round gate or door, facing the stick A.

Then they have a small wooden flat crotchet, seven or eight inches long, with a notch in it, near the end R, which is put into the stick A, and the other end passes under the bow; they also take a switch of hazel, or some wood, which being folded will grow straight of itself; this rod, which is a finger thick, and about three feet long, is fixed in the small hedge; they tie to the end V a packthread half a foot long, to the end of which packthread they fasten a horse-hair snare or spring, with a small stick cut at both ends, and made like a wedge to cleave wood with; the reject must be folded and pass the letter P underneath the bow, and doing the same also by the end of the small stick, fasten it under the edge S of the bow, and raising the bird-trap or snare, fix the other end of the stick in the notch R, by which means the machine will be kept light; then extend the snare P in a round or over the trap; but it must be so pliant, that as soon as the woodcock would pass through and put his foot upon the trap, the reject will immediately unbend, and catch him by the leg.

Others fasten a small circle to the trap, that so the woodcock may have more room for his feet, and so make the reject of use to you, and catch him; for it may happen, that as he crosses the gap, he does not pass over it.

This second device with the circle, is represented by the letter K; others make use of snares, which they adjust, as has been shewn in the preceding article, and which are set forth in the cut, by the letters M, N. *See* DRAW-NET, Plate V.

To take Woodcocks with Bird-Lime, &c.

Woodcocks and snipes are difficult to discover, they lying close, and not resorting much together, especially in the day-time.

The custom of the woodcock is usually to lie on banks by hedges and ditches against the sun; you may take notice, that on a day after a moon-shiny night, they will suffer one to come better to find them than after a dark night, and for this reason, because they can see to feed in moon-shiny-nights, and will not be so still and watchful as when taking their rest.

The snipes naturally lie by the sides of rivers, when all plashes are frozen, and always with their heads up or down the stream, and not athwart it; and in order to find them out a person must be expert in the knowledge of their colours.

Now, in order to take woodcocks, *&c.* with bird-lime, you must provide yourself with sixty or seventy twigs, which you must daub with bird-lime neatly and smoothly; and having found their haunts, which you may discover by their dung, which is generally in low plashy places, and such as have plenty of weeds, and not frozen in frosty weather; and at such places

are

are the twigs to be set, more or less, as you think fit, at about a yard distance one from the other, setting them so as to stand sloping, some one way, and some another.

And if you design to see sport, you must be concealed.

And if there be any other open place near to that where you have set your twigs, beat them up, or else set twigs there too.

It is said that these birds put their bills into the moist places of the earth where they frequent, and so jogging and moving them about, disturb the worms and cause them to come out, and so they become their prey.

WOOD-LARK. A fine bird, not much inferior to the nightingale in song; but of this kind, as well as all the rest, there are some that far excel others in length and sweetness of song.

Though this is a very tender bird, yet it breeds the soonest of any that we have in *England*; it is also a hot and mettlesome creature, so that if the wood-lark be not taken in *January*, or the beginning of *February*, they grow extraordinary rank, and pine away in a short time, by reason of the rankness of their stones, which are found very much swelled in them when they are found dead.

They delight much in gravelly grounds and hills that lie against the rising of the sun, and in the stubs of oaks.

The females couple with the males the beginning of *February*, at which time they part with all their last year's brood, and immediately go to nest.

They build most commonly in layer grounds, where the grass is pretty rank, and grown russet; using bennet-grass, or some of the dead grass of the field; and always make it under a large tuft, to shelter themselves from the wind and weather, which at that time of the year is commonly very cold.

As for their young, they feed them with a small kind of worm; but they cannot be brought up to any kind of perfection from the nest, as ever yet could be found.

The young branchers are first taken in three months of the year, *June*, *July*, and *August*. The next season of their taking is their general flight time, which is the latter end of *September*, for then they rove from one country to another; and lastly, from the beginning of *January* to the latter end of *February*, at which time they are all coupled, and return to their layers, or breeding places.

Those that are taken in *June*, *July*, or the beginning of *August*, are for the most part catched with a hobby, after the following manner:

Go out in a dewy morning on the side of some hills, which lie opposite to the rising sun, where they most usually frequent; then surround them two or three times with the hawk upon the fist, and make him hover when you come indifferent near: whereupon they will lie till you clap a little net over them, which you are to carry upon the end of a stick.

Or else if three or four persons go out together, and take a net made in the form of those used for partridges, when you go with a setting-dog, only the meshes must be smaller; and then your hawk to the lark will be like a setting-dog to partridges, so that with such a net you may take the whole flock at the draught; for these larks keep company with their young ones till flight time, and then they part.

Those that are taken in *June*, *July*, and *August*, sing presently, yet last but a little time in song, for they immediately fall to moulting, which if they withstand, they commonly prove very sweet song birds, but not so lavish as those that are taken in the spring; they are also commonly very familiar.

Such as are taken at flight, are brave, strong, sprightly, straight birds, but do not usually sing till after *Christmas*.

Those taken in *January* and *February*, sing within two or three days, or a week at the fartheſt, if good conditioned; and these last commonly prove the best, as being taken in full stomach.

As for the ordering of wood-larks, you must have a cage with two pans, one for mixed meat, and another for oatmeal and hempseed: boil an egg hard, and the crumb of a halfpenny white loaf, and as much hempseed as bread; chop the egg very small, and crumble the bread and it together, and then pound the hempseed likewise very sharp in a mortar, or bruise it with a rolling-pin, and mingle all together, and keep it for use.

Strew fine red gravel at the bottom of the cage, and renew it every week at fartheſt; otherwise the lark will clog his feet with his dung, and will not take half that delight in himself; for he takes a great deal of pleasure in basking himself in sand, which if he has not pretty often, he will grow lousy, and if he does so, seldom, if ever, comes to good.

The perch also in the cage must be lined with green bays, unless you make a perch of mat, which these larks do take great delight in.

But if he be wild when first taken, keep him three or four days without company till he begins to eat his meat, and because sometimes they do not find the pan till near famished, strew hempseed and oatmeal upon the sand.

How to know a Cock Wood-lark from a Hen.

1. This may be done by the loudness and length of his call.
2. By the tallness of his walking about the cage.
3. The doubling of his notes in the evening, which is called cuddling, as if he was going to roost; but if you hear him sing strong you cannot be deceived, for hens will sing but little.

The Diseases incident to Wood-larks.

They are tender birds if they are not rightly ordered, but when well managed have been kept six or seven years with much pleasure, singing better and better every year, and at last have sung real variety of notes, even to admiration.

The particular distempers wood-larks are subject to, are, the cramp, giddiness in the head, and to be very lousy; for though they are not subject to it when they are abroad, in cold weather, yet they have a variety of motion, as flying and running, which they have not in a cage.

And besides, if the gravel in their cage be not often renewed, their dung will clog their feet, benumb them, and cause the cramp.

To WORK A HORSE; is to exercise him at pace, trot, or gallop, and ride him at the manage.

To work a horse upon volts, or head and haunches in, or between two heels, is to passage him, or make him go sideways upon two parallel lines.

WORMS IN DOGS. All spaniels have certain strings under their tongues, by most called a worm; this must be taken out when they are about two months old, with the help of a sharp knife to slit it, and a shoemaker's awl to raise it up; you must be careful to take all out, or else your labour is to little purpose; for till then, he will be hardly ever fat and right, as the worm or string will grow foul and troublesome, and hinder his rest and eating.

WORMS IN SPANIELS are sometimes bred in a wound, after a dog has been hurt; especially if it be in a place where the dog cannot come at the place to lick it; for if he can, it will need no other cure.

For the Cure: Take powder of matre-silva dried in an oven, or in the sun, and strew it on the affected part, when little worms have been bred in the wound, because they will not only much retard the healing of it, but also make it grow worse.

To remedy which, put a little ivy into the wound, and let it remain in it a whole day, then wash the part with white wine, and anoint it with an ointment made of bacon-grease, oil of earth-worms and rue.

If a spaniel be troubled with worms within his body, give him the yolk of an egg, with two scruples of saffron in a morning fasting, and keep him fasting till the next morning.

Of Worms breeding in the Hurts and mangy Parts of Spaniels.

These worms obstruct the cure, either of wounds or mange, and cause them either to continue at a stay, or to grow worse and worse.

To remove this obstruction, put the gum of ivy into the wound, and let it remain there a day or two, washing the wound with wine, and afterwards anoint it with bacon-grease, oil of earth-worms, and rue.

The powder of wild cucumbers is also very good to kill these worms, and will prove a great corrosive in eating away the dead flesh, and increasing the good.

If the worms be within the body, you must destroy them in the following manner:

Cause the spaniel, fasting, either by fair means or foul, to eat the yolk of an egg, with two scruples of saffron pulverized, and make a confection with the same egg, and keep him fasting afterwards till night.

If a spaniel be hurt in a place where he can come to lick his wound with his tongue, he will need no other remedy; and that will be his best surgeon: but when he cannot do that, then such wounds as are not venomous, may be cured with the powder of matresilva, dried either in an oven, or in the sun.

If the wound be the bite of a fox, anoint it with oil, wherein earth-worms and rue have been boiled together.

If by a mad dog, let him lap twice or thrice of the broth of germander, and eat the germander boiled.

Others pierce the skin of his neck with a hot iron just betwixt his ears, so that the fire may touch both sides of the hole made: and afterwards plucking up the skin of the dog's shoulders and flanks, backwards, thrust it through with a hot iron in like manner, and by giving the venom this vent is a ready way to cure him.

WORMS IN HORSES: are produced from raw and indigested humours. To cure:

Take antimony in fine powder a quarter of a pound, of quicksilver an ounce; boil them in two pailfuls of water till it come to one and a half, of which mix half a pailful with as much water as the horse will drink, having first strained it, and so continue till he drinks the whole. *See* BOTTS, *&c.*

Mr. LAWRENCE, in his Treatise, says, "The only peculiar symptom of worms, is the horse's rubbing his tail often, without any apparent humour or eruption; the general signs are similar to those which denote griping pains. Farther, a horse troubled with worms will eat heartily, and yet be always lean, and out of condition, his coat staring as if surfeited; a sickly paleness of the mouth and tongue, and cadaverous smell; he will be tucked up in his flanks, and occasionally heave much, turning his head now and then towards them, and striking his belly with his hinder feet. The dung will be often mixed with a yellowish matter, like melted sulphur, or be otherwise discoloured, foul, and fetid. Worms, and the slimy spawn of them, will be sometimes ejected, but not always.

"The remote cause of worms is a colluvies of indigested matter, which for want of timely evacuants, putrefies; or a natural predisposition in the animal fluids to putrefaction.

"In the cure mercurials alone are to be depended upon, and as in proper hands they are perfectly safe, even for human infants, it is truly unprofitable trouble to use any other means. RIVERIUS says, that oil will suffocate all kinds of worms; if so, it surely deserves notice as an anthelmintic.

"Oil clyster. Prepare a strong decoction, or infusion, in boiling water, of tobacco, savin, wormwood, rue, garlic, and coralline, if the latter can be procured; to one pint of this add a pint of linseed oil, and inject the mixture, blood warm, the last thing at night. Repeat it or not, at discretion, at two o'clock next day; and at night give the horse two drachms of calomel, in very fine powder, made up with cordial ball, or for want of that, with powdered anniseeds, and a little ginger and oil; or with diapente. In the morning give a purge with fine aloes, jalap, and myrrh, balled up with hard soap and rectified oil of amber, mild or strong according to circumstances, particularly with relation to the effects of the clysters and the mercury. This physic being repeated every ten days, with the clysters intermediately at pleasure; the course will eradicate and sweep away the whole generation of worms, together with that collection of foul materials of which they

they are made. If the calomel should be found too mild, the more powerful preparations of mercury may be substituted, as diagridium or turbith; scammony also is very efficacious. Clothe well, and beware of cold. Should the subject be too much reduced, and the powers of the stomach debilitated by the necessary force of those powerful specifics, recruit with bark, bitters, and steel; or two drachms to half an ounce steel filings, in the corn, for some weeks; or grass. Where the time and attendance cannot be spared for the above regular course, it has always been usual to give worm-powders, or other alteratives, in the horse's feeds; and æthiops has been the common vermifuge basis from the earliest days of GIBSON." Mr. LAWRENCE recommends a trial of alkalized or calcined mercury, half a drachm, to a drachm of which, finely powdered, may be given every other day, mixed up with a large spoonful of powdered guaiacum, turmeric, and anniseeds, and continued a fortnight to a month; the usual care being taken of cold, and warm water given if possible; the clysters also may be used. This method is very suitable for draught horses.

According to the old farriers, there are four different species of worm generated in the body of a horse. "Little short worms, with great red heads, and long small white tails, called botts. Short thick worms with black hard heads, all of a bigness, like a man's finger, called truncheons. Worms from six to eighteen inches in length, and as thick as a man's finger, which are, the rotundi, or earthworms; and red maw-worms, resembling wood-lice, but with fewer feet, having thick, short, sharp heads, velveted on the back like a bat, and made up of several folds." These last, it is asserted, will perforate the stomach of a horse, and kill him: but it is not yet determined, whether worms can really exist in the stomach of a living animal; that they are found there after death every one knows; but BRACKEN thinks it probable they make their way thither from the *duodenum*, after the vital functions have ceased.

WORMING; or the taking away the nerve from under the tongue of a dog, will prevent him from ever biting, if he should grow mad.

WORM-CHOLIC. A distemper in horses, occasioned by broad, thick, and short worms, or trunchions, like little beans, of a reddish colour, which sometimes bring violent cholic pains upon the poor beast: they gnaw the guts, and sometimes eat holes through the maw, which kills the horse. The voiding red worms along with the excrements, is a sign of this distemper, for long white ones seldom gripe a horse: so are his biting his flanks or his belly, in the extremity of the pain, or tearing of his skin, and then turning his head and looking upon his belly; you also find him sweat all over, frequently throwing himself down, and start up again, with other uncommon postures: several remedies are set down for this distemper, but that which follows being justly reputed a specific for this and other horse cholics, it is necessary it should be inserted.

Take roots of masterwort, leaves and roots of radishes, great centaury and tansy, of each half a pound, all dried in the summer sun, or moderate heat of an oven in winter; half as much of each of these, *viz.* germander roots, angelica and elecampane, all dried in the shade, sea moss, and liver of aloes, of each two ounces; of galangal, nutmeg, and sal prunella, one ounce each; they must all be pounded apart, then mixed and kept in a leather bag, or glass bottle stopped up close: the dose, according to the size of the horse, must be from an ounce to two ounces and a half, to be mixed with three or four drams of old treacle, or an ounce of diatesseron or mithridate, and given in a pint of white wine; after which the horse must be walked in his cloaths.

If you suspect worms, an ounce and a half of this specific powder, mixed with half an ounce of *mercurius dulcis*, will infallibly kill them; and therefore an ounce of specific powder may be mixed with as much aloes, three drachms of *coloquintida*, as much agaric, and half an ounce of turbith, giving him the whole in a quart of white wine, with a quarter of a pint of the gall of an ox, covering him after it, and walking him for a quarter of an hour; 'tis true, this will at once both purge and kill the worms, though it is only fit for great eaters, and that about two or three days after the cholic fit is over.

If a horse is troubled with worms or breaking out, take a handful of box leaves, and having dried them, pound them to powder, and mix them with the same quantity of sulphur in powder; and after the horse comes in from hunting, or any hard labour, rub him well and dress him, and let him stand a good while upon the bridle, and let the first meat you give him be a handful or two of well sifted oats, and a good quantity of this powder sprinkled among them.

But you must do this with that cautiousness, that the horse may not take a distaste to his meat on that account.

Or take hepatic aloes about five drachms, reduced to powder, and make it up into pills with fresh butter, and give the horse in ale-wort, a horn full of wort to every pill: let him have three of them. Or,

Take leaves of savin, and mix them well with honey and fresh butter, and making this mass into two or three balls or pills, give them the horse with a horn of strong beer after each ball.

WORMS FOR ANGLING; are the ash-grub, a milk-white worm with a red head, and may be had at any time from *Michaelmas* till *June*. It is to be found under the bark of an oak, ash, alder, or birch, if they lie a year after they have been cut down. You may likewise find it in the body of a rotten alder, if you break it with an axe; as also under the bark of a decayed stump of a tree. It is also a good bait for a grayling, chub, roach, and dace.

The brandling, gilt-tail, and red-worm, are all to be found in old dunghills, or the rotten earth near them, but the best are found in tanners yards under the heaps of bark which they throw out after they have done with it: the brandling is most readily met with in hog's dung. These are good baits for trout, grayling, salmon-smelts, gudgeons, perch, tench, and bream, or any fish that takes a worm.

The clap-bait, or bott, is found under cow-dung, and

and is like a gentle, but bigger. You must seek for it only on land that is light and sandy, for it is much of the same nature with the earth-bob, and may be kept in wet moss for two or three days. It is an excellent bait for a trout, but almost every other fish will take it.

The cad-bait, caddis-worm, and straw-worm, are only different names for the same bait. They are found in pits, ponds, brooks, and ditches, and are covered with husks of sticks, straws, or rushes, and stones. Those with stones or gravel husks are peculiar to brooks, and those with straw and rushes to ponds, and all the three sorts may be found at one and the same time. They are very good baits for trouts, grayling, carp, tench, bream, chub, roach, dace, salmon-smelts, and bleak. The green sort are found in *March*, the yellow in *May*, and a third sort in *August*. Those covered with rushes are always green, and those with stone-husks usually yellow all the season.

About a week or nine days in *May* cad-bait fishing comes in season; which is the first bait to be used in a morning, and may be continued to the middle of the day.

It is an excellent bait till the middle of *June*, and is to be used with a hook leaded on the shank, and the cad-bait drawn on to the top of it. It will take in deep waters as well as in streams, by moving it up and down about nine inches or a foot from the bottom; this is commonly called sink and daw. There is another method of fishing with cad-bait, at mid-water, but then you must put a canon-fly at the point of your hook.

This bait is a good bottom-bait, if the water be clear: and is to be preferred to the worm at least three degrees to one, because all sorts of pool fish, and even the eel, are great lovers of it.

The earth-bob, or white-grub, is a worm with a red head, as big as two maggots, and is soft and full of whitish guts; it is found in a sandy light soil, and may be gathered after the plough, when the land is first broke up from grazing. You may know in what ground to find them by the crows, for they will follow the plough very close where these worms are to be met with. This is chiefly a winter-bait, from the beginning of *November* to the middle of *April*, and is proper for chub, roach, dace, bream, tench, carp, trout, and salmon-smelts. They are to be kept in a vessel close stopped with a sufficient quantity of the earth they were bred in, and they will be ready for use all the winter. From this bait arises the *May* fly.

The flag worm, or dock-worm, are found in the roots of flags that grow on the brink of an old pond. When you have pulled up the root, you will find among the fibres of it reddish or yellowish cases; these you must open with a pin, and you will find a small worm longer and slenderer than a gentle, with a red head, a palish body, and rows of feet all down the belly. This is an exceeding good bait for grayling, tench, bream, carp, roach and dace.

The lob-worm, dew-worm, garden-worm, or twatchel, as differently called, is a proper bait for salmon, trout, chub, barbel, and eels of the largest size. It is to be found in gardens, or church-yards, by the help of a lanthern, late in a summer's evening. In great droughts, when they do not appear, pour the juice of walnut-tree leaves, mixed with a little water and salt, into their holes, and it will drive them out of the ground.

The marsh-worm is got out of marsh-ground on the banks of rivers, and is of a bluish colour: it is a likely bait for salmon-smelts, gudgeon, grayling, trout, perch, bream, and flounders, in *March*, *April*, and *September*, though they use it from *Candlemas* till *Michaelmas* preferably to any other.

The tag-tail is of a pale flesh-colour, with a yellow tag on his tail almost half an inch long; they are found in marled land, or meadows, after a shower of rain, and are a good bait for a trout, if you angle for them after the water is discoloured with rain.

And here you must observe, that all worms should be well scoured in moss that has been well washed and cleansed from all dirt and filth; after it is wrung very dry, both the moss and the worms should be put into an earthen pot close stopped, that they may not crawl out. This pot should stand cool in summer, and the moss be changed every fourth day; but in winter it should stand warm, and if you change the moss once a week it will be sufficient.

Besides these worms that are to be found in the earth, there are others which breed upon different herbs and trees, which afterwards become flies. The principal of these are, the palmer-worm, the crabtree-worm, and the caterpillar. These are to be kept in little boxes, with holes to let in the air, and they must be fed with leaves of the same tree on which they were found. They are good baits for trout, chub, grayling, roach, and dace.

All sorts of worms are better for being kept, except earth-bobs, and in case you have not been so provident, then the way to cleanse and scour them quickly, is to lay them all night in water, if they are lob-worms, and then put them into your bag with fennel: but you must not put your brandlings above an hour in water, and then put them into fennel, for sudden use; but if you have time, and propose to keep them long, then they are best preserved in an earthen pot, with good store of moss, which is to be fresh shifted every three or four days in summer, and every week or eight days in winter, or at least the moss taken from them, clean washed, and wrung between your hands till dry, and then put it to them again; and when your worm, especially the brandling, begins to be sick, drop about a spoonful of milk or cream upon the moss; and note, that when the knot, which is near the middle of the brandling, begins to swell, he is sick, and, if care is not taken, will die. If you want to scour worms in a little time, put them about an hour in grains and blood; then put them into clean moss. Gilt-tails are soonest scoured by putting them in a woollen bag, and keeping them in your waistcoat pocket. *See* FISHING.

WORMS. If you sprinkle on the earth water, wherein the seeds and leaves of hemp have been sodden, it will bring them out. The roots both of grass and corn

corn are eagerly devoured by worms, especially when the corn first begins to shoot. They may be killed with sea-water sprinkled on the ground, or with salt and water made into brine. Some affirm that soot strewed on the ground will kill them; while others give the preference to lime and chalk for that purpose. Green walnut-husks rubbed on a brick or tile, and held at the bottom of a pail of water till it is become bitter; this water, being sprinkled on the ground, brings the worms out in a very short time. If your garden is infested with worms, water your beds with the brine of salt meat, or with a strong lixivium made of ashes. Some people lay lime or ashes about the plant, and neither worms nor snails will come near it. Others smoke their holes with cow dung; or kill them by sprinkling mother of oil on their holes. The most proper time to pick them up is in the evening, or after considerable rain. To get them out, take a fork with two prongs, stick it in the ground, and shake it well; morning and evening are the best times for doing this. To preserve apple trees from worms, lay sea-onion about the roots. If they come naturally, bull's-gall, or horse dung, mingled with urine, and poured to the roots, destroys them: but if they are hard to destroy, dig into the bark with a brass pin, or such kind of tool, till the point takes upon the worms, and drives them away; but where there is a place ulcerated, stop it with cow-dung. If you rub your chests of drawers and other wooden furniture, with linseed oil, or with wormwood, rue, and other bitter herbs, it will preserve them from the worm; and all wooden household furniture that is rubbed with the lees of linseed oil, and polished, will make the better appearance.

WOUNDS. Dogs as well as other animals may be wounded several ways, and for a general cure, take the juice of red colewort, squeeze it into the wound, and it will cure the animal in a few days: those dogs that hunt the wild boar are very subject to be wounded, and therefore it is very necessary they should be readily dressed: they are commonly wounded in the belly: but provided the same be only ripped, though the guts come out, if unhurt, they are easily cured by a dextrous man, who is gently to put the guts in with his hand, which ought to be clean washed before, and anointed with oil of olives, or some good tender fat: you should put a small slice of bacon in the wound, and sew it up with a surgeon's needle, and fine white thread twisted and knotted at the ends, that it may not slip, and to prevent its soon rotting; the same may also be done by other places, and the wound must always be kept moist, that the dog may lick it, which is the best and most sovereign ointment of all: the point of the needle ought to be square, and the rest round; dog keepers ought always to be furnished with them, as well as good thread and bacon.

It often happens that dogs are hurt by wild boars, in running over their bodies, though they have not injured them with their tushes; this animal, which is heavy, sometimes breaks one of their ribs, or at least puts them out; in this case take care to set them: but if there be a bruise or hurt, take simphiten root, the plaister of mellilot, pitch, or gum, oil of roses, an equal quantity of each; mix all together, spread it on a linen cloth, and when you have cut off the hair on the place affected, apply the plaister to it as hot as he can endure it: but in *Savoy* and *Piedmont* they prepare a sovereign remedy, called *Benjoin*, which they take from *Fir*, a plaister made of which, will not fall off till the cure is perfected.

WOUNDS. Hurts, mentioned here as they relate to horses, which are such serviceable creatures to mankind. Horses receive hurts several ways, and in several parts of the body, and it is necessary the methods of curing them should be here set down. If a horse receives a wound with the shot of gunpowder, the farrier, in order to cure it, must first search if the bullet be in the wound; if so let him take it out with an instrument made for that purpose; but in case it cannot be got out, patience must be had, for nature itself will wear it out of its own accord without any impediment, lead being of that nature, it will not canker: but to kill the fire, let him drop some varnish with a feather to the bottom, and stop up the mouth of the wound with some sort of flax dipped likewise in the same, then charge all the swollen place with the following charge:

Take a quarter of a pound of bole ammoniac, half a pound of linseed oil, beaten into powder, as much of bean flowers, and three or four eggs, shells and all; a quantity of turpentine, a quart of vinegar, which mingle well together upon the fire, and being somewhat warm, charge all the sore place with part thereof, and clap a cloth upon it to keep the wound warm; and so continue every day for four or five days together; but on the fifth, leave off anointing it, and tent it at the bottom with a tent dipped in hog's grease and turpentine melted together, renewing it once or twice every day till the fire is killed, which may be perceived by the matter in the wound, and falling down of the swelling, for as long as the fire has the upper hand, no thick matter will issue out, but only a thin yellowish water, neither will the swelling assuage; then take half a pound of turpentine washed in nine several waters, and put three yolks of eggs and a little saffron to it, tent it with this ointment, renewing it every day till the wound be whole.

But if the shot be quite through the wound, then take a few weavers linen thrumbs made very knotty, and dipping them first in varnish, draw them through the wound, running them up in the wound at least twice or thrice a day, and charging it on either side upon the swollen places with the charge aforesaid, till you perceive the fire is killed; then clap a comfortable plaister upon one of the holes, and tent the other with a tent in the salve of washed turpentine, eggs, and saffron as aforesaid.

But there are some farriers who are used to kill the fire with the oil of cream, and to heal up the wound with turpentine, wax, and hog's grease, melted together.

Or they kill it with snow water, and charge the swelled place with cream and balm mixed together, healing up the wound by dipping a tent in the yolk of an egg, honey, and saffron, well beaten together.

Others

Others in case of a wounded horse, have recourse to the following pills, that carry in them a wonderful and almost incredible efficacy.

Take the finest and clearest assa fœtida, bay-berries of *Provence* or *Italy*, and cinnabar, all in fine powder, of each a pound, incorporate them in a brass mortar, with a sufficient quantity of aqua vitæ, and make up the mass into pills, each weighing fourteen drachms, which must be laid in a convenient place to dry; give two of these pills to the wounded horse, once in two days, or once every day, until he has taken eight or ten, according to the greatness of the wound, and let him stand bridled two hours before, and as many after.

These pills promote the cure of a wound by purifying the blood, resisting corruption, and may be kept twenty years, without any diminution of their virtue.

When the wound seems to be at a stand, and yet does not appear foul, it requires medicines that are endued with a power to make the flesh grow; and the following powder is recommended, as being of extraordinary use in this case: Take true dragon's-blood and fine bole ammoniac, of each half an ounce; mastich, olibanum, and sarcocolla, three drachms of each; aloes, round birthwort, and roots of flower de lis, of each a drachm and an half, mixed and made into powder; but the effect of it will be more powerful if mixed with syrup of roses, turpentine or juice of wormwood.

This indeed you will find will make the flesh grow beyond expectation.

If a detergent or cleanser be required, let the following water be used, which may easily be prepared thus, and it is called by farriers, who love to keep people in ignorance, the *Phagedenical water*: take two or three pounds of unslaked lime newly made, put it into a large bason of fine tin, and by degrees pour in five quarts of rain water, then setting the bason in a convenient place for two days, stir the water often; after which suffer the lime to fall to the bottom, pour off the water by way of inclination, strain it through brown paper, and to two pints of it add half a pint of good spirit of wine, an ounce of the spirit of vitriol, and as much corrosive sublimate in fine powder; mix and preserve it for use in a glass vial.

If you perceive a great deal of corruption in the wound, or any appearance of a gangrene, add to the whole quantity of the water an ounce of arsenic, diminishing the dose proportionably, according to the quantity of water.

Now having laid down several useful medicines for the cure of wounds, it will not be improper to propose some certain maxims, on which the true way of proceeding in the cure is grounded:

First, then, a horse's wound must be probed very gently, and as seldom as possible, by reason his flesh is extremely subject to corruption, and to grow foul on the least contusion that happens.

Secondly, the wound must be kept clean, and free from corrupt flesh, which must be consumed with powders.

Thirdly, a revulsion must be made in the beginning, that is, you must divert the course of the humours, and prevent their falling upon the wound: bleeding is the best revulsion, for it allays the heat of the humours, and lessens the redundant quantity of them.

Fourthly, a horse's tongue being as prejudicial to a wound as poison itself, he must not be suffered to lick his wound.

Fifthly, never proceed to suppuration if the humours can neither be dissolved nor repelled; especially in parts that are full of ligaments and sinews, or near the bones.

Sixthly, if a wound be accompanied with a great contusion, or is round or circular, in such cases incisions and the application of caustics are required.

Seventhly, the wound must be carefully covered, for the air retards the cure.

Eighthly, the callous lips of a wound must be cut to the quick, before they can be re-united.

Besides this general account of the wounds and the method of curing them, something may be proper to be said concerning those hurts or wounds received in some particular parts of a horse's body; and when he has received any such in his back, you must apply oyster shells reduced into a fine powder thereto, and let him eat some golden comfrey, cut into small pieces, amongst his oats.

The wounds of the breast, according to some modern authors, are cured with tents and soft folds of linen put over them, steeped in a composition made of verdigris, vitriol, and alum, of each an ounce, eight ounces of vinegar, and a pound of honey, boiled together till they become red.

Wounds in the belly are cured in the same manner as men's wounds are in that part, by sowing up the whole peritonæum with a very strong woollen thread, leaving the extremities without, and the skin with a strong, hempen thread waxed, joining the lips of the wound together in the form of a buckle, and applying thereunto the common ointment proper for wounds; and in case any inflammation happens, you must apply some chalk dissolved in vinegar to it.

When the guts of a horse come out, you must not touch them, but put them in with a sponge steeped in hot water, and then squeezed, to the end that it may only retain the heat.

Some, in putting in the guts, endeavour to make a horse vomit, by putting a feather into his throat, which has been steeped in oil.

If the wound is not quite large enough to put them in through, you must make it wider; if the pannicles come out, you must cut it: when the guts are wounded or swelled, there is no likelihood of a cure; no more than there is when a horse evacuates blood at his fundament.

Those that are wounded near the groin, easily fall into convulsions; and in such cases you must keep the horse from drinking, as much as possible; cover him well, and suffer him not to walk, but give him green things to eat.

Wounds in the knees, according as ARASILTES informs

forms, as are difficult to be cured, because there is but little flesh and skin on that part as well as on the legs; and therefore those medicines are to be used that are of a very drying nature: whereas, where there is store of flesh, you must use those that are moderately drying.

When horses are wounded with thorns, and other things, but lightly in some parts of their bodies, you must apply thereto honey and tallow boiled together; and when the wound is considerable, turpentine and oil, both hot.

Some, in order to take out that which has run into the foot, and for pricks, put nothing upon it but boiled elder; and if any thing should penetrate between the foot and the hoof, it must be pulled out, and afterwards an ointment applied to it, made of verdigris, and the like; and care must be taken that the wound be well cleansed.

Or else you may melt some turpentine, tallow and wax mixed together: it is necessary the medicines should penetrate the bottom of the wound; and therefore if it be narrow, it must be enlarged: and this must be observed concerning all wounds.

To say nothing here of several ointments that are proper for wounds, and well known generally to those who have occasion to use them: if a nerve happens to be cut, you must close it, and use a defensive, to prevent a concourse of humours; some take the back of the root of an elm, with the dregs of oil of olives, and boil them till a third part be wasted, so that there be but one pound left, which you must mix with two ounces of the powder of long aristolochy, and four of an he-goat's grease, or fat; you must boil it so much, that when you drop some of it upon a stone it will grow hard.

Some there are who make a mixture of laurel, anniss, mastich, and tartar, and incorporate them with cheese and hog's grease, to make an ointment of them.

If a nerve has received a hurt, you must foment it with some oil, wine, and honey; then apply thereunto a plaister made of the root of elder and honey, and the root of *althea*.

If the nerve is bruised, you must apply some fine flour, myrrh and aloes, mixed with the flesh of a tortoise, to it; and if it be a little torn, make a circle round it with a hot iron, and draw a dozen lines across in form of a little wheel.

In case the horse happens to be wounded with a bone, bit of wood, or shord, and that the same stick in the flesh or hoof, you must forthwith take it out; and after you have cleansed it, apply to it a medicine made of verdigris, or some other plaister proper for wounds; put a tent into it, and the next day wash it with sweet wine, and anoint with things proper to heal, and put some barley-flour and alum upon it.

Fresh WOUND in a Horse. As soon as a horse has received a wound, apply oil of turpentine, and it will prevent all ill consequences; or, if you cannot easily procure oil of turpentine, wash the part with warm water and brandy, or with common spirits and warm water.

All our best writers, from the days of Gibson to the present time, have concurred in making heavy complaints against the farriers, for obstinately adhering to the ancient method of treating wounds. It is still too much their practice to make use of oils and greasy applications, to cram the parts with long hard tents, to thrust a whole candle into a wound, and there leave it, (which has prepared many a horse for his last journey) and to begin too soon, or needlessly, with escharotics.

In a healthy subject, flesh-wounds are sufficiently disposed to unite and heal, nature herself furnishing an agglutinating balsam; the chief care necessary, is to preserve them from the air, and keep them clean. The proper medicaments, whether of the healing, detergent, or discutient class, are composed of turpentines, gums, and spirits, with as little oil as is consistent with rendering the composition sufficiently emollient. Inflammation renders poultices and fomentation necessary. Bring the lips of the wound together by bandage or sewing; indeed the latter is not often necessary. A single stitch is sufficient for a wound two inches long; in large wounds, set the stitches full an inch distant; in those seated upon prominent parts, such as the hips, or the large muscles, the stitches generally burst in sunder upon the horse's lying down or rising, on which account the lips must not be drawn too close: the wound being deep, the needle must be passed deep in proportion. Should inflammation and great discharge ensue from the tightness of the suture, relief will be obtained by cutting the stitches. In case of hemorrhage, from an artery divided, pass a crooked needle underneath, and secure it with a waxed thread, in preference to silk; should that be impracticable, clap a button of lint or tow, dipped in some proper styptic, fast upon the orifice of the bleeding vessel, carefully keeping it there with a proper comprels, until the eschar be formed. Cover with rags dipped in brandy, tow spread with wound-ointment, &c. observing it as a general rule, to keep all divided parts as much at rest as possible, to promote union. In two days the first dressing may come off, the parts may be fomented and poulticed, and a proper digestive applied; continue this until the flesh shall appear florid, and the discharge healthy, and of good consistence, when the fomentations may be discontinued, and the wound healed with proper attention to the suppression (when needful) of the fungous flesh; but especial care ought to be had, not to dry the wound too much, and render it horny by the abuse of escharotics. The tents, or dossils made use of, ought to be soft and short, and put in as loose as possible.

Wounds upon the joints or tendons, and those occasioned by stakes or goring of oxen, are cured by the same method; in these latter, the orifice must be enlarged, and instead of the old farrier's method of thrusting up a candle, and stitching it fast, to confine the matter and impede digestion, make an incision in form of a cross, wide enough for the discharge, and proceed as before.

In gun-shot wounds, and in case of the intrusion and lodgment of any foreign body, such should be extracted when it can be done without too much pain and disturbance;

ance; otherwise by emollient and drawing poultices; the orifice must generally be enlarged, and a depending one procured.

In scalds or burns, the skin being intire, bathe well three times a day with camphorated spirits, in which soap has been dissolved, and keep the parts dressed with linen dipped in the same, or with a plaister of salt and soap; or use an embrocation of soap, salt, and camphorated spirits. When the skin is broken, anoint with salad or linseed oil. Linseed oil, red lead, and bees wax, half a pound each, boil and mix over a slow fire. Or, in case of great inflammation, bread and milk poultice with elder flowers. Yellow basilicon with precipitate. Or, dress the burnt parts with two ounces of crude sal ammoniac, boiled a few minutes in one quart of water, mix gradually with spirit of wine, one quart.

Ulcers must be brought to the state of a wholesome wound, and to discharge a good thick and white matter, previous to any attempt at healing. They must be carefully probed, and every cavity and sinus detected, and thoroughly cleansed to the very bottom. Dress, and fill with dry lint to the surface. Bandage tight. In ulcers of the human body, the application of cold water from a tea-pot has been recommended by authors of good repute; for instance, RIGBY, and lately by Mr. BAYNTON; adhesive plaister being applied for bandage. In some cases oak bark, beat very fine, seven parts, with ceruse powder, one part, may have a good effect. Alum water, or powdered charcoal, are of great use to counteract the fetid stench in putrid ulcers. All callous or horny substances must be extirpated with the knife or caustic. In hollow sinuous ulcers, where no counter-opening can be made, injections must be used. When the bones are foul, which is generally discovered by a loose, flabby flesh, a thin, oleous, fetid discharge, and by the rough feel of the bone against the probe, it is necessary to extirpate the loose flesh, to come at the bone, in order to remove the carious part, which is best effected by the cautery. In gangrene, bark internally, and the mortified parts timely scarified, to eliminate the putrid serum. In the symptomatic fever sometimes attendant upon wounds, cooling laxatives, clysters; venesection; in a depraved state of the blood, alteratives, steel, *&c.* It is recommended to farriers to provide themselves with proper leaden probes, needles, *&c.* from the surgeons-instrument makers.

Various Forms.

The *Common Poultice.* Mix half a pint; salad oil, three large spoonfuls; grated bread enough for due consistence. Add the bread to the milk when boiling, afterwards beat in the oil thoroughly.

Suppurative or Ripening Poultice in the Strangles. Leaves of mallows and marshmallows, green or dry, twenty handfuls; white lily root, washed and pounded, half a pound; linseeds and fenugreek seeds, bruised, four ounces each; boil very soft and pulpy, and add elder ointment, four ounces; and lard as much as needful. Mix, and keep for use.

Common Digestive Poultice, in grease, *&c.* Boil ground oatmeal, and strong beer grounds, add lard enough to supple it. Turpentine, two ounces, may be added, or four ounces, to the foregoing. Or, lily-roots, linseed, and rye flour.

Resolvent. Onions and chamomile flowers, properly boiled and mixed, add goose-grease, or for want of it, neat's-foot oil. This is very efficacious to disperse swellings. Or, with oatmeal, cummin-seeds powdered, two ounces; and powdered camphor, half an ounce; or sal ammoniac dissolved in *British* spirit. Proper in bruises, and to disperse coagulated blood.

Anodyne. Boil chamomile, elder leaves or flowers, poppy, bay-leaves, and rosemary, with oatmeal, mix with elder ointment, and a little camphorated brandy.

Repellent and Restringent. Dissolve alum in vinegar, or verjuice, add half the quantity of oil, with red wine lees, or stale beer grounds, and bean meal. Or, old verjuice, or distilled vinegar, one quart; alum, one ounce; curriers shavings, or oak-bark, boil to a poultice, with or without saturnine ointment, and apply warm twice a day.

Unguents, Emollient and Suppurative. Elder ointment. Or, neat's-foot oil, three pints; yellow wax, nine ounces; yellow rosin, half a pound; turpentine, two ounces; ground ginger, two ounces. Melt the rosin and wax in the oil, take off the fire, and add the turpentine; strain hot, and mix in the ginger.

Stimulant and Discutient. *Flanders* oil of bays, half a pound; goose grease, four ounces; quicksilver, one ounce; turpentine, one ounce. Mix the quicksilver and turpentine thoroughly, then, adding the rest, work well together. A quantity of digitalis, or fox-glove flowers, sufficient to impregnate the whole mass, may be beat up with it; the ointment being kept two or three weeks previous to use. To dissolve tumours on the glands, or kernels, either in the brute or human species.

Blistering. Nerve, and ointment of marshmallows, each two ounces; quicksilver, one ounce, rubbed in a mortar, with one ounce and a half of turpentine, till of a lead colour; mix those well, and add cantharides, in fine powder, one drachm and a half; sublimate, one drachm; oil of origanum, two drachms. Or, common ointment, or oil, two ounces; cantharides, three drachms. Observe that the flies are fresh and good. Cut the hair close as possible, rub in well, and patiently. Tie the horse up without litter, till the blister work. Cover with pitch plaister. When a rowel will not discharge, apply now and then a small quantity of blister with a feather.

Digestive for Wounds. *Venice* turpentine and bees wax, one pound each; olive oil, one pound and half; rosin, twelve ounces; when melted, stir in two or three ounces of verdigris, finely powdered; stir on till cold. This may be used with red precipitate, instead of verdigris, half an ounce to four ounces. *Burgundy* pitch, one pound, may be added to the digestive. For wounds near the joints, *&c.* *Venice* turpentine, one ounce. Yolks of two eggs, honey, and tincture of myrrh, one ounce each. Balsam equal to FRIAR'S. Gum-Benjamin, three ounces; storax, two ounces; balsam of *Peru* and *Tolu*, half an ounce each; succotrine aloes, six drachms; myrrh, two ounces; rectified spirit, two pints; infuse in

in a warm place several days, till the gums are dissolved, then decant.

Tobacco Ointment. Leaf tobacco, half a pound; boil in a quart of red port to a pint, (or elder wine and distilled vinegar, equal parts) strain, and add half a pound of tobacco in fine powder; lard or oil, one pound; rosin and bees-wax, four ounces each; roots of round birthwort, powdered, two ounces. Detergent, drying, and appeases pain.

Styptics against Bleeding. Puff-balls, dried and powdered. Sponge moderately dried by the fire, so as not to destroy its spring, and kept dry. Or, roche-alum and blue vitriol, three ounces each; spring water, one quart, boil till dissolved, filter, and add oil of vitriol, half an ounce. Apply with dossils of lint. COLDBATCH's styptic may be had of the druggists.

Gelding is safe at any age in a healthy subject. Having opened the scrotum, tie the cords with a strong waxed thread, and then cut off the testicle. Proceed as in other wounds. The old mode was the cautery, and no ligature; very unsafe. Moderate exercise. Several bottle-conjurors have gone about at different periods, pretending to make *a secret* of gelding horses, and working them in a few days; and, *lamentabile dictu*, the secret has died with one of them, notwithstanding a certain wise-acre employed himself two hours, endeavouring to bring the dying-man to a confession. The itch for miracles seems innate. *Si Populus vult humbuggi, humbuggiatur.*

Swelled Neck from Bleeding. Warm fomentations, cooling saturnine ointment, bread and milk poultice. Check proud flesh with red precipitate and burnt alum, fine powder. If swelling or indurations remain, spirits doubly camphorated, four ounces; bole, one drachm; aquafortis, twenty drops. Apply lint or tow, dipped in the mixture; bind with warm thick flannel. Proper in bruises of the back and withers. Or, rowel in the breasts, and blow the skin up to the part affected.

Swelling or Bruise from the Saddle. Boil hay in equal parts of stale urine, iron quenched in it, and verjuice; spirits may be added after, or not. Bathe with the liquor, and charge with the hay as hot as can be borne. Renew. A fit-fast must be exsected with the knife, or extracted with pincers; in the latter case, place a wisp of hay, and upon it a board, as a fulcrum, or rest for the pincers. As to chafing with collar or harness, the most mischief happens from wet, or the harness being rough dry; prevention, or instant remedy. Salt and water. Vinegar. Spirits to the raw places.

Poll-Evil, and Fistula in the Withers. Those generally arise from gross and brutal neglect, and would submit in their early stage to the usual repellents, hot vinegar, *&c.* with bleeding and cooling internals. When the inflammation increases, and it is obvious matter is forming, forward with poultices, if necessary, and wait until the abscess be thoroughly ripe, and fluctuating under the finger: then introducing one or more setons, from the upper to the very lowest extremity of the tumour. This will succeed, and indeed make the best cure in a mild case; but in dangerous and inveterate ones, such as I have seen, would be a very feeble and deceptious method, as I have already hinted; and, on a reference, I find Dr. BRACKEN of the same opinion. When the abscess on the poll is opened; if there be matter on both sides, a depending orifice must be made in each. In the necessary operations with the knife, great care must be taken that the muscles be not cut across, and particularly that the white line, cervical ligament, or, as the farriers call it, the fix-fax of the neck, be not wounded; and that the parts be preserved as much as possible from the air. Tie the horse's head high, by which the ligament of the neck will be slackened, and less exposed to danger, as the finger may be introduced under it. It is probable, that some operators in these cases, may have been too free with the knife, but it is equally true, that in foul and fistulous ulcers, in horses, no cure can be expected until the corrupt or callous flesh shall be extirpated either with the knife or fire; and that at last there will be frequently such an overflow of greasy and gluey matter as will blunt and render useless the most potent corrosives, unless applied scalding hot.

The Common Digestive Ointment for Ulcers. Add to the general wound-ointment spirits of turpentine, or a few drachms of mastich and myrrh, in fine powder, or tincture of myrrh. Or use the following; common tar, two pounds; turpentine and honey, half a pound each; a dozen yolks of eggs; melt, and when they are only milk warm, stir in one ounce of the best verdigris in fine powder, or an ounce or two of red precipitate, mix sufficiently long, that these last do not sink.

Phagedenic Water to suppress fungous Flesh. Strong lime water, one quart; stir frequently several days, pour off clear, and add spirit of wine, eight ounces. Or, a strong solution of *Roman* vitriol and alum, in water.

Cleansing Mixture in Poll-Evil, or Fistula. Best vinegar and rectified spirit, half a pint each; white vitriol, dissolved in a little water, half an ounce; tincture of myrrh, four ounces; shake when used. To be heated in a ladle, and the abscess washed with tow soaked in it. Fill with tow, moistened in the mixture, or soaked in ægyptiacum, or oil of turpentine, hot; and cover with tow soaked in vinegar and whites of eggs beat together; warm woollen over all.

Scalding Mixtures. When all measures have failed to bring the ulcer to good condition, from its coldness, and the superflux of matter, scalding has generally been resorted to with success; but I think it ought not to be adopted in cases of much inflammation. Corrosive sublimate, verdigris in fine powder, and *Roman* vitriol, pounded, two drachms each; green copperas, half an ounce; ægyptiacum, two ounces; oils of turpentine, and train, or linseed oil, eight ounces each; rectified spirit, four ounces; mix in a bottle for use. Or, verdigris, half an ounce; oil, half a pint; oil of turpentine, four ounces; of vitriol, two ounces. First cleanse the abscess with sponge and vinegar, then pour in the mixture scalding hot, from a ladle with a spout; close the lips with stitches, and cover to remain several days; if then the matter appear thick and good, nothing farther will be needed than spirituous applications; if otherwise, the operation must be repeated. In a confirmed case of this kind, what would be the event of covering the abscess with a *Burgundy* pitch plaister,

making one or more setons, and turning the horse upon a salt marsh?

To promote the Growth of Flesh. Dragon's blood, bole, mastich, olibanum, and round birthwort, half an ounce each; succotrine aloes, one drachm and a half; make an ointment with turpentine.

Applications in Gangrene. After the necessary scarifications, wash the parts with strong salt and water, and old verjuice, equal parts; or, the nitrous acid. Or, boil the following in one gallon of strong vinegar to two quarts; alum, one pound; copperas, half a pound; verdigris, fine powder, three ounces. Shake as you use it: if not sufficiently strong, add to each quart, quicksilver, one ounce, dissolved in two ounces of aquafortis. Foment and poultice. Dress with basilicon, four ounces; oil of turpentine and ægyptiacum, two ounces each, melted together.

Varicous Ulcers, or those among the blood-vessels, must be bathed once or twice a day, with warm fomentations of oak bark, pomegranate flowers, red rose buds, alum, and white vitriol, boiled in vinegar.

Fomentations, Discutient and Repellent. Wormwood, southernwood, and chamomile, two handfuls each; bay and juniper berries, bruised, one ounce each; crude sal ammoniac and pot-ash, two ounces each; boil in three quarts of spring water to two; to every quart, when used, add one pint of spirits of wine camphorated.

Drawing Applications. Arsmart and brooklime, equal quantities. Just cover them with stale urine, stop close some days. Boil for use, and apply hot. This is said to be particularly efficacious in a sudden strain of the shoulder, with much tension and inflammation, and may be applied in a kind of boot, wide at top, and fastened over the withers.

Cataplasms for Swellings are made of black soap, yeast, and honey, a quarter of a pound of each; goose-grease, a small quantity of ginger, in fine powder.

WRIST. The bridle wrist, is the wrist of the horseman's left hand.

A horseman's wrist and his elbow should be equally raised, and the wrist should be two or three fingers above the pommel of the saddle.

YARD-FALLEN, a malady in a horse, which proceeds from want of strength to draw it up within the sheath, so that it hangs down between his legs.

This is caused either by the weakness of that member, or by means of some resolution in the muscles and sinews of it, caused by a violent slip, strain, or stroke on the back, or else by some great weariness or tiring.

For the cure: first wash the yard with white wine warmed, and then anoint it with oil of roses and honey mixed; then put his sheath in a little canvas bolster, to keep it from falling down, and dress him thus once in twenty-four hours, till he is recovered.

Keep his back as warm as you can, both with a cloth and a charge of plaister, made of bole ammoniac, eggs, wheat flour, dragon's blood, turpentine, and vinegar; or else lay wet hay, or a wet flack next his back, and over that a dry cloth, which will do very well.

YARD FOUL; if a horse's yard is so fouled or furred without, that he stales in his sheath, melt fresh butter, with white wine vinegar, and having pulled out his yard, and taken off all the filth, wash it with the liquor, and also inject some of it into the yard.

YARD MATTERING IN A HORSE, is most commonly occasioned by his over-freeness in spending upon mares in covering time; and when the horse and mare are both too hot, it burns them, causing the running of the reins.

The signs of it are the issuing of a yellow matter from his yard, and a swelling at the end of it, and when he stales, he does it with a great deal of pain, and cannot easily draw up his yard again.

For the cure: Boil an ounce of roche-alum, and a pint of white wine, till the alum be dissolved. Inject the liquor blood-warm with a syringe, throwing it up his yard as far as you can, four or five times a day. This will perfectly cure him.

YEARN, (in Hunting) signifies to bark as beagles properly do at their prey.

The YELLOWS IN A HORSE. A disease, the same that is usually called the jaundice in human bodies, of which there are two sorts, the yellow and the black.

The yellow proceeds from the overflowing of the gall, caused by choler; and the other from the overflowing of the spleen, caused by melancholy, and are both dangerous infirmities, but the black is the most mortal.

If the horse be young, it is easily cured; but in old ones, where the liver has been long diseased, it becomes impracticable.

This distemper is known by the horse's changing his natural colour of white, in the ball of his eyes, to yellow; his tongue, the inside of his lips, and the outward parts of his nostrils, are also coloured yellow. The horse is dull, and refuses all kinds of food; a slow fever is perceived, but it increases together with the yellowness. The dung is often hard and dry, of a pale yellow, or light pale green. His urine is commonly of a dark, dirty, brown colour, and when it has settled, sometimes looks like blood. He stales with pain and difficulty.

The black is known by quite contrary symptoms; for the whites of his eyes, mouth, and lips, will be of a duskish colour, and not so clear and sanguine as before.

For the cure: dissolve an ounce of mithridate, in a quart of ale or beer, and give it the horse lukewarm; or instead of mithridate, two ounces of *Venice* treacle; or if that cannot be had, three spoonfuls of common treacle.

Bleed him plentifully, and as costiveness is a general concomitant of this disorder, a clyster should be given, and the next day the following purge:

Take of *Indian* rhubarb, in powder, one ounce and a half; of saffron, two drachms; of succotrine aloes, six drachms; and of syrup of buckthorn, a sufficient quantity to make the whole into a ball.

If the rhubarb should be thought too extensive, it may be omitted, and the same quantity of cream of tartar, and half an ounce of *Castile* soap, with four drachms more of aloes added. This may be repeated two or three

three times, and the following balls and drink given immediately after:

Take of æthiops mineral and millepedes, of each half an ounce; and of *Castile* soap, one ounce; make the whole into a ball, and repeat the same several days successively, washing it down with a pint of the following decoction:

Take of madder-root and turmeric, of each four ounces; of burdock root, sliced, half a pound; of monks rhubarb, four ounces; boil the whole in a gallon of forge water till it is reduced to three quarts: then strain the liquor from the drugs, and sweeten it with honey.

If this method be pursued, the distemper will, in all probability, abate in a week: but if it should prove too obstinate for this treatment, mercurial purges should be given, and afterwards the following medicine:

Take of salt of tartar, two ounces; live millepedes and filings of steel, of each three ounces; of saffron, half an ounce; of *Castile* or *Venice* soap, half a pound; make the mass into balls about the size of a pullet's egg with honey, and give one of them night and morning, washing it down with the above drink.

Mr. Lawrence speaks of the yellows as follows, viz. That the symptoms are sluggishness, want of appetite, rough coat, loss of flesh, and hollowness of flank, low fever, yellowness of the eyes and mouth, pale or brown urine, crude, loose, and pale excrement, or very dark coloured, and in small balls.

Mr. Bracken says, should the disease have arisen from high keep and indigestion, for want of air and exercise, or timely purgation, and the horse be in tolerable strength, begin the cure by once moderate bleeding, and the next day give the mild aloetic purge, with rhubarb, turmeric, and saffron. After the setting of this dose, proceed regularly with the following infusion, until the disease shall submit, which in a favourable and recent case may very well happen in a week. The infusion: Salt of tartar, two ounces; turmeric, three ounces; saffron and soap of tartar, each half an ounce; filings of iron, three ounces; mix in a gallon of beer, (porter is preferable) and infuse in a stone bottle, corked up two or three days, shaking frequently. Strain off from a pint to a pint and a half for a dose, milk warm every morning fasting.

Or *Indian* rhubarb, turmeric, madder, liquorice root, sal polychrest, in powder, equal quantities; make balls with *Castile* soap and honey. A common sized ball twice a day. This seldom fails. Clyster once or twice, if needful. Rowel. Water-gruel. Clothing. Air. Walking exercise. Perhaps another mild purge, or slight course of salts, may be necessary to bring the horse into good working condition.

Should the disease proceed from severity of labour, and chronic obstructions, and the liver be affected, the most powerful chemical deobstruents will be required. The external appearance of the horse will shew the case but too plainly. Preparations of steel. Æthiop's mineral, or the antimonial powder, must be tried; but the administration of these ought to be in professional hands. Gibson recommends bleedings, from the inflammatory state in which he has found the livers, on dissection of jaundiced horses.

Frequently there will be but little occasion for medicine, for the horse will be dead in two or three days after being taken from work, when the liver will be found totally decayed; or a dark fatious discharge will issue from the nose and mouth, which the farriers say is the disease changed to the black jaundice, and which is incurable.

The inveterate jaundice may with the utmost propriety take the denomination of consumption in horses; a case in which the success of a long course of medicine would by no means be so certain as the expence and trouble. A short course well advised. Salt marshes. Straw-yard, with carrots and lucern hay.

To YERK or Strike in the Manage, is said of a horse, when he flings and kicks with his whole hind quarters, striking out the two hinder legs near together, and even to their full extent.

YIELD or Slack the Hand, (with Horsemen) is to slack the bridle, and give the horse head.

ZAIN, is a horse of a dark colour, neither grey nor white, and without any white spot or mark upon him.

FINIS.

R. Noble, Printer,
Old-Bailey.

DIRECTIONS *for placing the* PLATES.

The Frontispiece to face the Title.
Angling between B and C.
Plate II. between F and G.
III. between I and K.
IV. between K and L.
V. in the middle of Q.
VI. between Q and R.
VII. in the middle of P p.
VIII. between F f and G g.
Plate IX. in the middle of Y y.
X. between Y y and Z z.
XI. ditto.
XII. between 3 A and 3 B.
XIII. between 3 K and 3 L.
XIV. between 3 L and 3 M.
XV. between 3 R and 3 S.
XVI. between 3 X and 3 Y.